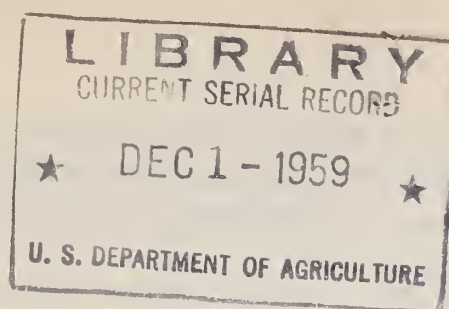


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1960 OUTLOOK ISSUE

October 1959

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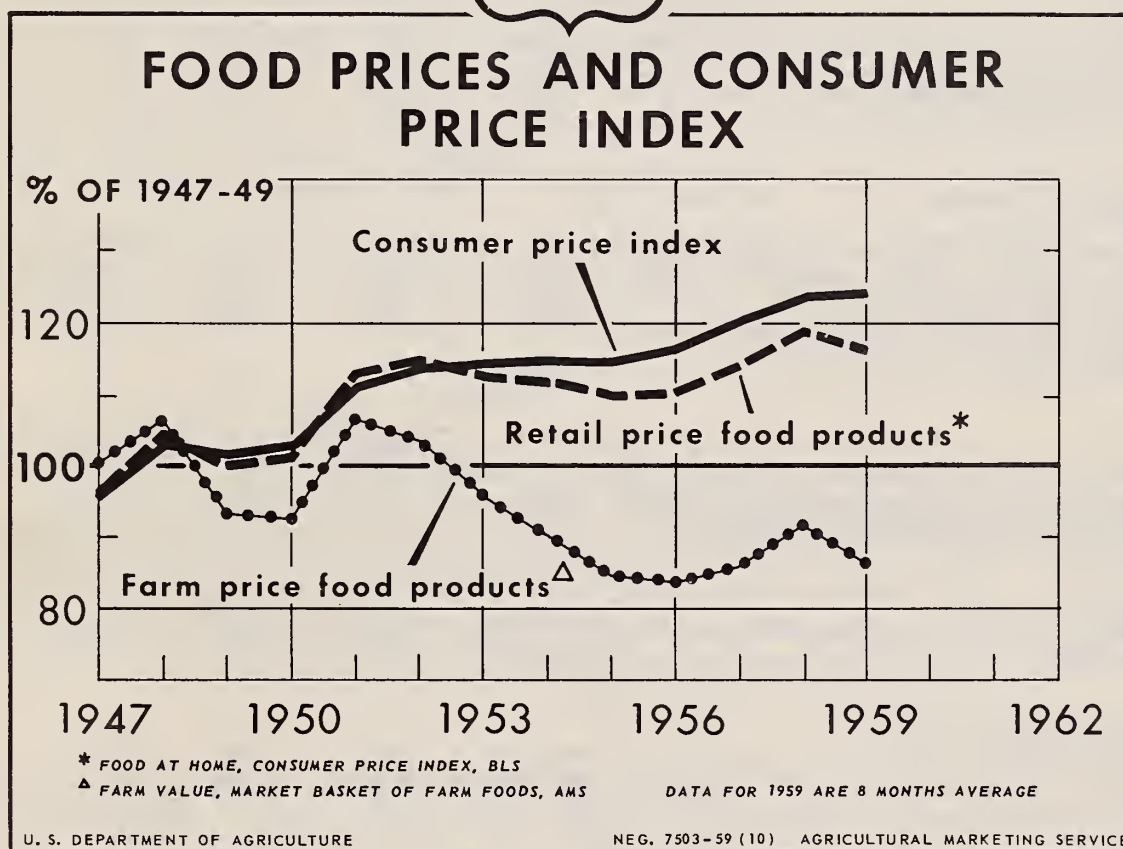
NOV. 6, A. M.

The MARKETING and TRANSPORTATION SITUATION

MTS-135



In this issue:
Changes in Marketing Channels for
Farm Foods
Trends and Prospects for Marketing
Textiles
Recent Developments in Transportation



Declining retail prices of food were a major factor in preventing any significant rise in the Bureau of Labor Statistics Consumer Price Index during 1953-55. Conversely, the rise in food prices at retail and farm levels did much to boost the Consumer Price Index from mid-1956 to mid-1958. Since mid-1958 declining food prices have in most months moderated the rise in the Index. Declines in retail

food prices resulted from decreases in farmers' prices, as marketing charges rose almost steadily.

In December 1958 food consumed at home accounted for about 24 percent of the retail cost of goods and services included in the Consumer Price Index, compared with about 43 percent in 1947-49 when retail prices of food were higher relative to other prices.

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AGRICULTURAL MARKETING SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

STATISTICAL SUMMARY OF MARKET INFORMATION

Item	Unit or base period	1958		1959		
		Year	July-Sept.	Jan.-Mar.	Apr.-June	July-Sept.
<u>Farm-to-retail price spreads</u>						
Farm-food market basket: 1/						
Retail cost	Dol.	1,065	1,068	1,042	1,040	1,045
Farm value	Dol.	427	423	408	402	395
Farm-retail spread	Dol.	638	645	634	638	650
Farmer's share of retail cost	Pct.	40	40	39	39	38
Cotton: 2/						
Retail cost	Dol.	2.11	2.10	2.10	2.11	---
Farm value	Dol.	.32	.32	.32	.33	---
Farm-retail spread	Dol.	1.79	1.78	1.78	1.78	---
Farmer's share of retail cost	Pct.	15	15	15	16	---
Tobacco: 3/						
Retail cost	Dol.	3.70	---	---	---	---
Farm value	Dol.	.60	---	---	---	---
Federal and State excise taxes	Dol.	1.40	---	---	---	---
Farm-retail spread excluding excise taxes	Dol.	1.70	---	---	---	---
Farmer's share of retail cost	Pct.	16	---	---	---	---
<u>General economic indicators</u>						
Consumers' per capita income and expenditures: 4/						
Disposable personal income	Dol.	1,818	1,836	1,861	1,899	1,890
Expenditures for goods and services	Dol.	1,683	1,687	1,728	1,762	1,767
Expenditures for food	Dol.	387	386	389	394	---
Expenditures for food as percentage of disposable income	Pct.	21	21	21	21	---
			1958		1959	
		Year	Aug.	June	July	Aug.
Hourly earnings, production workers, manufacturing: 5/	Dol.	2.13	2.13	2.24	2.23	2.19
Hourly earnings of food marketing employees 6/	Dol.	1.98	1.96	2.05	2.06	2.04
Retail sales: 7/						
Food stores	Mil. dol.	4,190	4,152	4,300	4,289	4,305
Apparel stores	Mil. dol.	1,043	1,094	1,100	1,133	1,096
Manufacturers' inventories: 7/						
Food and beverage	Mil. dol.	4,687	4,638	4,928	4,847	4,801
Textile	Mil. dol.	2,557	2,524	2,532	2,534	2,494
Tobacco	Mil. dol.	1,874	1,838	1,819	1,838	1,864
Indexes of industrial production: 8/						
Food and beverage manufactures	1947-49=100:	115	116	120	118	119
Textiles and apparel	1947-49=100:	104	108	123	126	125
Tobacco manufactures	1947-49=100:	118	121	115	132	---
Index of physical volume of farm marketings	1947-49=100:	125	127	108	121	118
<u>Price indexes</u>						
Consumer price index 5/	1947-49=100:	123.5	123.7	124.5	124.9	124.8
Wholesale prices of food 5/	1947-49=100:	109.5	108.5	104.8	104.5	102.7
Wholesale prices of cotton products 5/	1947-49=100:	88.4	87.7	91.6	91.9	92.1
Wholesale prices of woolen products 5/	1947-49=100:	100.8	100.4	102.2	103.3	104.0
Prices received by farmers 9/	1947-49=100:	92	92	89	89	99
Prices paid by farmers 9/	1947-49=100:	114	114	115	115	115

1/ Average quantities of farm food products purchased per wage-earner and clerical-worker family in 1952.
2/ Data for average family purchases in 1950 of 25 articles of cotton clothing and housefurnishings divided by number of pounds of lint cotton required for their manufacture; see U.S. Dept. Agr. Mktg. Res. Rpt. 277.
3/ Data for 4 tobacco products from 1 pound of leaf tobacco (farm-sales weight), weighted by leaf equivalent of current tax-paid withdrawals; preliminary data for the fiscal year beginning July 1958. 4/ Third quarter 1959 data are from preliminary estimates by the Council of Economic Advisers. Seasonally adjusted annual rates, calculated from Dept. of Commerce data. 5/ Dept. of Labor. 6/ Weighted composite earnings in food processing, wholesale trade, retail food stores, calculated from data of Dept. of Labor. 7/ Seasonally adjusted, Dept. of Commerce. Annual data for 1958 are on an average monthly basis. 8/ Seasonally adjusted, Board of Governors of Federal Reserve System. 9/ Converted from 1910-14 base. Data for Sept. 1952 and later months revised, Feb. 1959.

THE MARKETING AND TRANSPORTATION SITUATION

Approved by the Outlook and Situation Board October 30, 1959

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SUMMARY

Retail prices of farm-originated food products averaged 2 percent lower in the third quarter this year than in July-September 1958. All of this reduction resulted from a 7-percent decrease in farmers' prices, as marketing charges were a little higher this year than last. Prices farmers receive for food products probably will decline further next year but only a part of this decrease is likely to be reflected in lower retail prices.

The farmer's share of the consumer's retail food dollar this year is estimated at 38 cents. Since farmers' prices for food products in 1960 are expected to be a little lower and marketing charges slightly higher, a decrease of about 1 cent in the farmer's share appears likely.

Unit marketing charges for farm foods have continued to rise in 1959. They averaged about 1 percent higher in the third quarter than in the same period of 1958. Marketing charges probably will continue upward in 1960.

Costs of performing marketing operations have risen in 1959 and further increases are anticipated in 1960. Average hourly earnings of workers in food marketing firms advanced this year. Prices of machinery and equipment, motortrucks, fuels and power, and some other items were up, but the general level of prices of items that marketing firms buy probably has risen less than in most postwar years. The level of rail freight rates changed little during the last 12 months.

Total profits (after taxes on income) of corporations processing food products were about 15 percent larger in the first half of this year than in the same period of 1958. Profits of leading retail food chains increased slightly.

Special Features in This Issue

The principal marketing channels for food products today involve fewer marketing intermediaries than those typical of an earlier generation. The rate of shift to more direct marketing has accelerated in recent years and an increasing number of retail food chains are buying directly from processors, country assemblers, and producers rather than from wholesalers, carlot receivers, and other intermediaries. Similarly, an increasing volume of eggs, poultry, and fresh fruits and vegetables move through channels that have fewer marketing intermediaries than formerly. Direct marketing of livestock by producers to packers continues to increase. The first article in this issue reviews the changes in marketing channels and considers the outlook for further increases in direct marketing (pp. 17-31).

American cotton and wool face intense competition from manmade fibers and foreign produced cotton and wool. The second article discusses recent changes in the American textile industry and further changes needed to meet increasing competition (pp. 32-39).

Piggyback service -- the hauling of truck trailers on flatcars -- has had a rapid growth since it was described in the October 1954 issue of this Situation. At that time 17 railroads in this country were offering, or had announced plans to offer, this service. Now the number of railroads has grown to 50. The third article in this issue describes piggyback services now offered. Other sections of this article consider the present status of the Federal Highway Program and the impact of the St. Lawrence Seaway on the transportation of American farm products (pp. 40-46).

FARM-RETAIL SPREADS FOR FARM FOODS --RECENT TRENDS AND OUTLOOK

Recent Trends

The farm value of the foods in the family market basket declined 7 percent from an annual rate of \$423 in the third quarter of 1958 to \$395 in the same quarter this year. 1/ (See table on p. 2.) Much of this

1/ The "market basket" contains the average quantities of farm-produced food products purchased for consumption at home per urban wage-earner and clerical-worker family in 1952. Additional information concerning the contents of the market basket and methods of estimating market-basket data are given in "Farm-Retail Spreads for Food Products," U.S. Dept. Agr., Misc. Pub. 741, 1957. The farm value is the payment farmers received for the farm products equivalent to the foods in the market basket.

reduction was caused by sharp drops in farm prices of hogs, eggs, and frying chickens, but farm values were lower for all product groups in the market basket except dairy products and fruits and vegetables (table 10, p. 50). The market basket farm value dropped 2 percent from the second to the third quarter this year. Again meat products accounted for much of the decline. Only dairy products and poultry and eggs, among the product groups, increased in farm value.

At an annual rate of \$1,045 the retail cost of the market basket in the quarter just ended was 2 percent lower than a year ago. 2/ Lower prices of pork, frying chickens, and eggs were responsible for most of the decrease (table 10, p. 50). Between the second and third quarter this year, increases in the retail cost of the poultry and eggs and the dairy products group were partially offset by decreases for meat products and fruits and vegetables, leaving the total market basket retail cost about unchanged.

The spread between the farm value and retail cost of the market basket rose to \$650 (annual rate) in the third quarter, 1 percent higher than in the same period last year (table 11, p. 51). 3/ The farm-retail spread declined from the third quarter last year to the first quarter this year; then rose from the first to the third quarter this year. Most costs incurred by firms marketing farm food products increased only slightly in 1959 compared with sharp increases in recent years (pp. 10-16).

The farmer's share of the dollar consumers spent for farm foods in retail food stores dropped to 38 cents in July-September 1959, 1 cent lower than in the preceding quarter and 2 cents below a year ago. 4/ This was the lowest quarterly average farmer's share since before World War II. The shares for dairy products, poultry and eggs, bakery and cereal products, and fats and oils all were near their lowest levels during the postwar period. Rising charges for most marketing services and a moderate downward trend in most farm prices accounted for the declining farmer's share.

2/ The retail cost of the market basket of farm foods is less than the retail cost of all foods bought per family. The "market basket" of farm foods does not include imported foods, fishery products and other foods of nonfarm origin, or costs of meals purchased in public eating places.

3/ The farm-retail spread or marketing margin is an estimate of the charges made by marketing agencies for assembling, processing, transporting, and distributing the products in the market basket.

4/ Estimates of the division of retail cost between farmers and marketing agencies are based on concurrent prices at the farm and retail levels, except for processed fruits and vegetables and sugar. During a period of rising prices, the farmer's share calculated on this basis is somewhat larger than the share derived by comparing prices received by farmers for particular lots of products with prices paid by consumers for the same lots after they have moved through the marketing system. The reverse is true in periods of declining prices.

Table 1.--The farm food market basket: Retail cost, farm value, farm-retail spread, and farmer's share of retail cost, 1947-59 ^{1/}

Year and month	Retail cost 2/	Farm value 3/	Farm-retail spread	Farmer's share
	Dollars	Dollars	Dollars	Percent
1947	911	467	444	51
1948	982	497	485	51
1949	928	435	493	47
1947-49 average	940	466	474	50
1950	920	432	488	47
1951	1,024	497	527	49
1952	1,034	482	552	47
1953	1,003	445	558	44
1954	986	421	565	43
1955	969	395	574	41
1956	972	390	582	40
1957	1,007	401	606	40
1958	1,065	427	638	40
1959 ^{4/}	1,035	395	640	38
1958				
Jan.	1,042	422	620	41
Feb.	1,049	431	618	41
Mar.	1,075	456	619	42
Apr.	1,085	455	630	42
May	1,086	446	640	41
June	1,084	437	647	40
July	1,080	428	652	40
Aug.	1,065	418	647	39
Sept.	1,060	423	637	40
Oct.	1,053	410	643	39
Nov.	1,049	408	641	39
Dec.	1,042	400	642	38
1959				
Jan.	1,048	411	637	39
Feb.	1,042	406	636	39
Mar.	1,036	407	629	39
Apr.	1,037	406	631	39
May	1,035	400	635	39
June	1,049	400	649	38
July	1,052	393	659	37
Aug.	1,038	395	643	38

^{1/} The farmer's share and index numbers of the retail cost, farm value, and farm-retail spread for the years 1913-56 are published in "Farm-Retail Spreads for Food Products," U.S. Dept. Agr. Misc. Pub. 741, 1957.

^{2/} Retail cost of average quantities of farm foods purchased per urban wage-earner and clerical-worker family in 1952, calculated from retail prices collected by the Bur. Labor Statistics.

^{3/} Payment to farmers for equivalent quantities of farm produce minus imputed value of byproducts obtained in processing.

^{4/} Preliminary estimates.

: Current data are given in the Statistical Summary, :
: a monthly publication of the Agricultural Marketing Service.: :

Steadiness in retail prices of food during 1959 has moderated the rise in the Bureau of Labor Statistics Consumer Price Index. (See cover chart.) During the first 8 months of the year the Consumer Price Index rose about 1 percent compared with a decrease of nearly 1 percent in its "food at home" component. The retail cost of the market basket of farm foods likewise declined 1 percent. ^{5/} This decrease was accompanied by a drop of 4 percent in the farm value of the market basket.

Sharp Drop in Retail Price of Pork
and Farm Value of Hogs

The retail price of pork in the third quarter this year averaged 57.2 cents -- 10.3 cents (15 percent) below the average for July-September 1958. But the farm value (the payment farmers received for 2.13 pounds of live hog, adjusted for the value of lard and byproducts) was 12.1 cents (31 percent) lower than a year earlier, so the farm-retail spread was 1.8 cents (6 percent) wider than in the third quarter last year. Both the live-wholesale and wholesale-retail segments of the farm-retail spread were larger than a year earlier (table 3). The decrease in the farm value reflected an increase in the number of hogs slaughtered, which was 14 percent greater in the first 9 months of this year than in the same period of 1958.

The farm value and retail price of lamb were lower in the third quarter than in the same quarter of 1958 and the spread was wider. The retail price, farm value, and farm-retail spread for beef in the third quarter this year differed little from those in the same quarter last year.

^{5/} Unlike the "food at home component" of the BLS Consumer Price Index, the market basket does not include imported foods and nonfarm foods, such as seafoods. The food at home component includes only food bought for consumption in homes -- not that consumed in restaurants and other eating places.

Table 2.--Beef (Choice grade): Live-wholesale and wholesale-retail spreads, by quarters, 1958-59 ^{1/}

Quarter	Live-wholesale (per 100 pounds live weight)					Wholesale-retail (per 100 pounds carcass weight)		
	Price of steers 2/	Wholesale value			Spread	Wholesale price 4/	Retail value 5/	Spread
		Carcass 3/	Byproducts	Total				
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
1958								
Jan.-Mar. ...	27.09	27.36	2.17	29.53	2.44	46.37	63.04	16.67
Apr.-June ...	28.46	27.98	2.40	30.38	1.92	47.43	66.24	18.81
July-Sept. ...	26.39	26.64	2.35	28.99	2.60	45.16	65.04	19.88
Oct.-Dec. ...	26.81	26.67	2.34	29.01	2.20	45.20	64.80	19.60
Average ..	27.19	27.16	2.32	29.48	2.29	46.04	64.78	18.74
1959								
Jan.-Mar. ...	27.96	28.04	2.41	30.45	2.49	47.53	66.40	18.87
Apr.-June ...	28.83	28.30	2.90	31.20	2.37	47.96	6/66.72	6/18.76
July-Sept. 7/	27.62	27.32	2.82	30.14	2.52	46.31	66.00	19.69

^{1/} Quarterly data for 1949-55 are published in "Beef Marketing Margins and Costs," U.S. Dept. Agr. Misc. Pub. 710, Feb. 1956, tables 1 and 3.

^{2/} Weighted average of price at 21 leading public stockyards in 1958, 20 in 1959.

^{3/} Wholesale carcass value is 59 percent of average wholesale price of 100 pounds of Choice grade carcass beef.

^{4/} Weighted average of prices of Choice grade carcass beef in New York, Chicago, Los Angeles, San Francisco, and Seattle.

^{5/} Calculated from average retail prices of beef cuts in urban areas, published by Bur. Labor Statistics. The retail value per 100 pounds carcass weight is 80 percent of average retail cost of 100 pounds of retail cuts, because about 20 pounds of a 100-pound carcass is fat, bone, and trim which is sold by retailers at nominal prices.

^{6/} Revised.

^{7/} Preliminary.

Table 3.--Pork: Live-wholesale and wholesale-retail spreads by quarters, 1958-59 ^{1/}

Quarter	Live-wholesale (per 100 pounds live weight)			Wholesale-retail (per 100 pounds major cuts)		
	Price of hogs ^{2/}	Wholesale value ^{3/}	Spread	Wholesale value ^{4/}	Retail value ^{5/}	Spread
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
1958						
Jan.-Mar.	20.59	26.19	5.60	48.66	62.85	14.19
Apr.-June	22.65	28.11	5.46	51.90	66.04	14.14
July-Sept.	21.85	27.74	5.89	51.28	67.24	15.96
Oct.-Dec.	18.97	24.74	5.77	45.47	61.99	16.52
Average	21.02	26.70	5.68	49.33	64.53	15.20
1959						
Jan.-Mar.	16.66	22.17	5.51	41.61	58.86	17.25
Apr.-June	16.85	21.96	5.11	41.71	^{6/} 58.01	^{6/} 16.30
July-Sept. ^{7/} ...	14.47	20.54	6.07	39.54	56.84	17.30

^{1/} Quarterly data for 1949-55 are published in "Pork Marketing Margins and Costs," U.S. Dept. Agr. Misc. Pub. 711, Apr. 1956, tables 1 and 2.

^{2/} Average price of 200-220 pound barrows and gilts, Chicago.

^{3/} Wholesale value at Chicago of 71 pounds of pork and lard obtained from 100 pounds of live hog.

^{4/} Wholesale value of 100 pounds of major pork cuts at Chicago computed from Livestock Market News and National Provisioner price quotations of individual cuts.

^{5/} Calculated from average retail prices of major pork cuts in urban areas, published by Bur. Labor Statistics.

^{6/} Revised.

^{7/} Preliminary.

Outlook for 1960

Prices received by farmers for food products probably will average a little lower in 1960 than in 1959, reflecting continued ample supplies of these products. Lower prices are anticipated for meat animals. At times during 1960 prices for milk and butterfat probably will be above 1959 levels, giving a higher average for 1960 than for 1959. Prices for other product groups in the market basket are expected to average about the same or slightly lower than this year.

Retail prices of farm food products may average a little lower next year but probably will decline less than farmers' prices.

Charges for marketing farm food products, as measured by the market-basket farm-retail spread, have risen each year since 1950, with an average annual increase of about 3 percent. Increases in wages and other costs incurred by marketing firms probably will tend to widen spreads a little further next year, but the increase is expected to be less than the average since 1950.

In view of the expected increase in marketing charges and drop in farm prices, the farmer's share of the consumer's retail food dollar next year may average less than the 38 cents estimated for this year (table 1). A decrease of more than 1 cent, however, is unlikely.

CORRECTION

Footnote 1 in table 15, page 46, of the July 1959 issue of this Situation should have read: Payments to farmers for 2.31 pounds of oats less value of byproducts.

COSTS AND PROFITS IN MARKETING FARM PRODUCTS

Labor Costs

Average hourly earnings of employees of food processing, wholesaling and retailing firms increased from \$1.96 per hour in August 1958 to \$2.04 in the same month this year (table 4). This 4 percent increase was larger than the increase during the year ended August 1958. Hourly earnings in the tobacco and textile manufacturing industries also increased about 4 percent between August 1958 and August 1959. In the apparel and finished textile products industry average hourly earnings were \$1.52 per hour during August, the same as a year ago. Retail apparel and accessories store employee earnings increased about 4 percent for the year ended in August 1959. 1/

During 1947-58 food manufacturing employees' hourly earnings rose nearly 80 percent while the average for all manufacturing employees increased 72 percent. But earnings in the food manufacturing industry still are lower than the average for all manufacturing industries. Earnings of all employees in food marketing firms increased 75 percent. Tobacco manufacturing employees' earnings increased 78 percent during 1947-58, and average hourly earnings in the textile industries and retail apparel stores increased between 35 and 50 percent.

In addition to increases in average hourly earnings, food marketing firms also have paid out more in fringe benefits. Between 1947 and 1958 these supplements to wages more than doubled and now represent more than 5 percent of labor costs in the food industry. These supplements include employers' contributions to pension, health, and welfare funds, and a few other minor items.

Productivity has increased at a faster rate than have wages. Increases in labor productivity have had a significant effect in keeping the marketing spread from increasing at a faster rate. Although hourly earnings of all food marketing employees increased 77 percent between 1947 and 1958, unit labor costs rose only 44 percent. 2/ Labor costs represented 47 percent of the total food marketing bill in 1958. From 1947 to 1958 the farm-retail spread increased 43 percent compared with the 44 percent increase in unit labor costs, which indicates that increases in labor costs are closely associated with increases in the spread.

1/ Average hourly earnings are calculated by dividing the total payroll by the number of hours worked. Thus, changes in these averages reflect variations in the proportions of employees in higher-paid and lower-paid jobs and premium pay for overtime and late-shift work, as well as changes in wage rates.

2/ This percentage increase relates to earnings of all workers engaged in marketing food, including imputed earnings of active proprietors and unpaid family workers and workers engaged in the transportation of food products. For that reason this percentage increase differs slightly from the corresponding percentage gain in hourly earnings of food marketing employees shown in table 4.

Table 4.--Average hourly earnings of employees of firms marketing food, tobacco, and textile products, 1939 and 1947-59

Year and month	Food marketing <u>1/</u>	Tobacco manufacturers <u>2/</u>	Textile-mill products <u>2/</u>	Apparel and other finished textile products <u>2/</u>	Retail apparel and accessories stores <u>2/</u>
	Dollars	Dollars	Dollars	Dollars	Dollars
1939	0.60	<u>3/</u> 0.48	<u>3/</u> 0.46	---	0.56
1947	1.13	.90	1.04	<u>3/</u> 1.12	1.03
1948	1.22	.95	1.16	<u>3/</u> 1.18	1.08
1949	1.28	.99	1.19	<u>3/</u> 1.17	1.11
1950	1.34	1.07	1.24	<u>3/</u> 1.20	1.12
1951	1.43	1.13	1.33	1.29	1.17
1952	1.51	1.17	1.36	1.30	1.22
1953	1.60	1.24	1.37	1.33	1.27
1954	1.66	1.30	1.36	1.35	1.31
1955	1.73	1.33	1.39	1.35	1.33
1956	1.81	1.45	1.45	1.45	1.37
1957	1.90	1.53	1.50	1.49	1.42
1958	1.98	1.60	1.51	1.51	1.46
<u>1958</u>					
Jan.	1.96	1.56	1.50	1.51	1.46
Feb.	1.97	1.56	1.50	1.50	1.44
Mar.	1.97	1.59	1.50	1.49	1.43
Apr.	1.97	1.65	1.50	1.50	1.46
May	1.98	1.66	1.50	1.50	1.47
June	1.98	1.67	1.51	1.50	1.47
July	1.98	1.66	1.50	1.50	1.46
Aug.	1.96	1.59	1.51	1.52	1.44
Sept.	1.98	1.50	1.51	1.53	1.47
Oct.	1.99	1.52	1.52	1.53	1.48
Nov.	2.02	1.60	1.52	1.52	1.48
Dec.	2.02	1.65	1.52	1.52	1.48
<u>1959</u>					
Jan.	2.03	1.64	1.53	1.53	1.51
Feb.	2.04	1.65	1.53	1.53	1.49
Mar.	2.05	1.69	1.57	1.53	1.48
Apr.	2.05	1.72	1.57	1.52	1.49
May	2.05	1.74	1.58	1.52	1.51
June	2.05	1.73	1.58	1.50	1.50
July	2.06	1.76	1.58	1.51	1.50
Aug.	2.04	1.67	1.58	1.52	1.49

1/ Weighted composite earnings in food processing and wholesale and retail food trades calculated by the Agr. Mktg. Serv. from data of the U.S. Dept. of Labor.

2/ U.S. Dept. of Labor.

3/ Not strictly comparable with data for later years.

Wages and fringe benefits probably will increase again in 1960 as they have each year since 1947. Productivity is expected to increase less than employee earnings, thus leading to higher unit labor costs.

Transportation Costs

The Interstate Commerce Commission has granted no major freight rate increases in 1959, so the combined rail freight rate index probably will average about the same this year as in 1958 or slightly lower. At present there are no requests for general or broadly selective rate increases before the ICC. If rates remain relatively stable in 1960, the 1958-60 period will resemble the stability during 1953-55.

The 1958 annual rail freight index for selected agricultural commodities increased only slightly over 1957, in contrast to the relatively large increases in 1956 and 1957 (table 5). Livestock freight rates again

Table 5.--Rail freight rate indexes for selected agricultural commodities, 1954-58 ^{1/}

(1947-49 = 100)						
Year and month	Livestock	Meat	Fruits and vegetables	Wheat	Cotton	Combined index
1954 ...	130	130	117	127	128	125
1955 ...	130	130	117	127	125	124
1956 ...	136	136	121	133	120	129
1957 ...	146	144	128	140	119	136
1958 ...	154	136	127	144	121	138
1958						
Jan. ..	150	146	128	143	120	138
Feb. ..	152	147	129	145	121	142
Mar. ..	154	147	131	147	121	146
Apr. ..	154	147	129	147	121	145
May ..	154	147	127	144	121	140
June ..	154	147	126	143	121	138
July ..	154	134	126	143	121	136
Aug. ..	154	123	125	142	121	135
Sept. .	154	123	125	142	121	135
Oct. ..	154	123	125	142	121	135
Nov. ..	154	123	125	142	121	135
Dec. ..	154	122	125	142	121	135

^{1/} The indexes shown here are based on actual rate levels, and rises reflect rate increases actually taken by the railroads. The increases were somewhat below those authorized by the Interstate Commerce Commission. The latter appears in an ICC statistical series.

For index numbers 1913-51 and methodology see Methods Used in Computing Rail Freight-Rate Indexes for Farm Products, by Robert B. Reese, U.S. Dept. Agr., AMS-209, issued Oct. 1953, reissued Sept. 1957. For annual indexes 1952-53 and monthly indexes 1956-57, see The Marketing and Transportation Situation, Nov. 1958, tables 9 and 10, pp. 41 and 42.

rose sharply; wheat and cotton rates showed moderate increases. These increases were partially offset, however, by a decline in average freight rates for fresh meats. Average rates for shipments of fresh fruits and vegetables declined slightly.

The annual average index for 1958 tends to conceal the marked changes which occurred during the year. In February of that year the Interstate Commerce Commission authorized small increases in rail freight rates on most agricultural commodities. As table 5 shows, the combined index increased about 6 percent in the first 3 months but then dropped about 8 percent in the next 5 months. From August through December the rate index remained stable at 135. Average rates for each of the commodity groups except livestock also increased early in the year and then decreased. The most significant decrease was in rates for fresh meats. The index for this group was more than 15 percent lower in December 1958 than in the same month a year earlier. The major reason for most of the decrease was the adoption of incentive rate schedules by many railroads in an effort to regain some of the traffic lost to trucks. Heavier loading of freight cars helped to reduce rates on fresh meats and fruits and vegetables.

Freight rates for transporting livestock by rail increased in February and March 1958 but remained relatively stable for the rest of the year. The increase from January through December 1958 was smaller than in the previous 2 years. December 1958 rail rates for this group were 18 percent higher than those for January 1956.

Other Costs

Prices of machinery and equipment, motortruck prices, and construction costs continued to increase in 1959 (table 6). Gasoline, fuel, and power prices also increased slightly; prices of only a few items were lower than in 1958. However, the general level of prices of equipment, packaging material, and other items marketing firms buy apparently has risen less thus far in 1959 than in most other postwar years.

The increase in interest rates is perhaps the most significant of the miscellaneous cost increases. Many food marketing firms rely heavily on short-term credit to finance inventories, operating costs, and other costs. Thus, these firms probably have been affected considerably by the sharp increase in interest rates. Interest rates, however, tend to fluctuate around an equilibrium rate and most firms can accept the higher rates for a short time in anticipation of lower rates in the future. As a result, increases in marketing margins caused by higher interest rates usually are temporary. Since 1947, however, the equilibrium rate of interest apparently has increased, representing a permanent increase in costs.

State and local taxes, rents, and other items probably continued to rise in most areas during the last year. Also, increased investment in plant and equipment in recent years has tended to increase depreciation and maintenance costs.

Table 6.--Costs of equipment and supplies bought by marketing firms, 1952-59

(1947-49 = 100)								
Item	1952	1953	1954	1955	1956	1957	1958	1959 1/
Fuel, power, and lighting: materials	106.6	109.5	108.1	107.9	111.2	117.2	112.7	113.2
Machinery and equipment ..	122.6	125.3	128.2	134.0	147.5	157.6	160.3	164.2
Construction costs	119.0	122.0	122.0	125.0	132.0	137.0	139.0	141.0
Wax paper	124.4	118.0	117.9	124.1	135.1	137.6	137.0	137.0
Grocery bags	119.0	117.0	108.1	109.9	141.4	151.7	156.1	154.4
Container board (paper) ..	115.6	117.2	119.9	119.9	123.7	125.0	125.0	125.0
Glass containers	125.0	134.4	141.1	142.9	150.4	158.9	167.8	167.8
Metal containers	122.0	127.3	130.6	132.9	141.6	151.2	155.7	154.2
Motortruck prices	116.2	115.0	113.8	118.0	127.2	134.0	139.8	143.2
Gasoline	114.6	120.4	114.8	114.6	118.0	123.6	115.4	115.9
Lubricating oils	99.2	83.7	71.1	73.3	87.4	97.6	91.3	89.3
Tires and tubes	129.8	127.2	130.6	144.9	152.3	150.9	152.4	149.2
1/ First 8 months.								

Index published by the Bureau of Labor Statistics except index of construction costs which is published by the Department of Commerce.

Profits

Total profits (after taxes on income) of corporations engaged in food processing were about 15 percent higher in the first half of 1959 than in the same period last year, according to a report by the Federal Trade Commission and Securities and Exchange Commission. Leading retail food chains' profits generally were larger in the first half of 1959 than in the comparable period of 1958. Textile mills and makers of apparel showed profits four times as large as in the first 6 months of 1958, but in the first half of 1958 profits totaled considerably less than in the first half of each of the 3 preceding years.

Profits (both before and after taxes) as percentages of sales and of stockholders' equity for leading food manufacturers increased in 1958 after a moderate decline in 1957 (table 7). For food wholesalers these ratios increased sharply; after-tax profit ratios were the highest since 1950, but they were still well below the averages of 1947-49. As a percentage of stockholders' equity, profits of leading retail food chains were slightly lower than in 1958, while their profits as a percentage of sales remained the same. Tobacco companies' profit ratios (before taxes) also increased sharply and were the highest on record; after tax, ratios were near the highest levels since World War II. Ratios for textile manufacturers declined sharply in 1958, for the second consecutive year (table 8).

Table 7.--Net profits (before and after taxes on income) as a percentage of stockholders' equity and as a percentage of sales, leading food and tobacco companies, average 1935-39 and 1947-49, annual 1950-58

Profits as percentage of stockholders' equity <u>1/</u>								
Year	50		5		8		5	
	food processing:		wholesale food:		retail food:		tobacco	
	companies		distributors		chains		companies	
	Before	After	Before	After	Before	After	Before	After
	taxes	taxes	taxes	taxes	taxes	taxes	taxes	taxes
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
Average:								
1935-39 ..:	8.7	7.3	---	---	10.2	8.4	17.3	13.9
1947-49 ..:	19.4	11.6	25.2	15.5	27.8	16.5	23.8	14.3
1950	20.9	11.5	17.2	10.0	26.7	14.0	25.8	13.5
1951	17.9	8.4	17.8	9.4	21.1	10.1	24.8	9.9
1952	17.4	8.2	12.4	5.8	22.5	10.0	23.0	9.5
1953	19.8	9.2	14.8	7.6	25.1	11.4	25.6	10.1
1954	18.3	8.8	13.8	7.5	23.3	11.3	23.1	10.6
1955	20.2	10.1	12.6	6.7	23.4	11.2	26.2	12.0
1956	20.0	10.2	15.0	7.6	27.5	13.1	26.2	12.1
1957	18.7	9.5	15.4	7.6	29.8	14.2	27.3	12.8
1958	20.2	10.2	18.3	9.7	29.2	13.8	31.5	14.6
Profits as percentage of sales								
	46		5		8		5	
	food processing:		wholesale food:		retail food:		tobacco	
	companies		distributors		chains		companies	
	Before	After	Before	After	Before	After	Before	After
	taxes	taxes	taxes	taxes	taxes	taxes	taxes	taxes
Average:								
1935-39 ..:	3.7	3.0	---	---	1.8	1.5	11.3	9.1
1947-49 ..:	3.8	2.3	2.7	1.7	2.3	1.4	8.2	4.9
1950	4.6	2.5	2.1	1.2	2.4	1.3	9.8	5.1
1951	3.6	1.7	2.1	1.1	1.9	.9	9.4	3.8
1952	3.4	1.6	1.6	.7	1.9	.8	8.2	3.4
1953	4.0	1.9	2.0	1.0	2.1	1.0	9.7	3.8
1954	3.8	1.8	1.9	1.0	2.0	1.0	9.4	4.3
1955	4.4	2.2	1.7	.9	2.1	1.0	10.8	4.9
1956	4.3	2.2	1.9	1.0	2.4	1.1	10.8	5.0
1957	4.1	2.1	1.8	.9	2.6	1.2	11.0	5.2
1958	4.4	2.2	2.3	1.2	2.6	1.2	12.3	5.7

1/ Ratio of net profits to average of stockholders' equity at the beginning and end of the year. Stockholders' equity is excess of total balance sheet assets over liabilities.

Compiled from financial statements reported in Moody's Industrials.

Table 8.--Net profits (before and after taxes on income) as percentages of stockholders' equity and sales, corporations manufacturing textile-mill products and apparel and finished textiles, annual 1951-58

Year	Profits as percentage of -							
	Stockholders' equity				Sales			
	Textile-mill products		Apparel and related products		Textile-mill products		Apparel and related products	
	Before taxes	After taxes	Before taxes	After taxes	Before taxes	After taxes	Before taxes	After taxes
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
1951:	19.8	7.1	9.9	3.0	7.9	2.9	2.1	0.6
1952:	9.7	3.6	10.9	4.5	4.2	1.6	2.4	1.0
1953:	9.8	3.9	11.3	5.0	4.7	1.9	2.6	1.2
1954:	5.2	1.5	10.0	4.5	2.7	.8	2.3	1.1
1955:	10.9	4.8	12.8	6.0	5.1	2.2	2.8	1.3
1956:	11.8	5.8	16.5	8.1	5.3	2.6	3.3	1.6
1957:	9.0	4.2	13.2	6.3	4.1	1.9	2.7	1.3
1958:	7.4	3.5	11.7	5.0	3.4	1.6	2.3	1.0

Computed from data in the "Quarterly Financial Report for Manufacturing Corporations," 1952-58 issues, published by the Federal Trade Commission and Securities and Exchange Commission.

OUTLOOK FOR MARKETING SERVICES

Farmers marketed a slightly larger volume of products in the first 9 months of this year than in the same period of 1958. A small decrease in the volume of crops was more than offset by an increase in marketings of livestock and livestock products. The total for 1959 may exceed the record volume of products marketed last year. Farmers' marketings are expected to continue at near the present volume in 1960. Part of this year's record farm output will be marketed next year, and farm output next year will continue high unless weather conditions are unfavorable.

In the first 8 months of 1959 the production of processed food products, tobacco products, and textiles and apparel was larger than in the like period last year. The output of textiles and apparel was nearly a fifth larger than in 1958. Sales of retail food stores totaled nearly 3 percent larger in the first 8 months of this year than in the same period last year.

Consumer disposable incomes (seasonally adjusted) advanced steadily in 1958 and in the first two quarters of 1959. Preliminary estimates indicate that both total and per capita disposable income were off slightly in the third quarter. (See table on page 2.) Further increases are forecast for next year. Consumers spent about 20.8 percent of their disposable income for food in the first half of 1959 compared with 21.6 percent in the first half of 1958. This percentage has been trending downward since 1947, when consumers spent 26.9 percent of their disposable income for food.

CHANGING MARKETING CHANNELS FOR FARM FOODS 1/

:
: Marketing channels for agricultural food products in :
: the United States have gone through three principal phases :
: of change during the history of the country. In the early :
: colonial period marketing channels were generally short. :
: Then as the economy grew and cities got larger and as trans- :
: portation facilities improved, marketing channels length- :
: ened, which is to say that marketing intermediaries involved :
: in moving a product from the farm to the consumer increased :
: in number. Before the Civil War, specialized marketing :
: firms gained a dominant position in the marketing of farm :
: food products. :
:
: During the latter half of the 19th century agricultural :
: products typically were handled by four, five, or even a :
: larger number of intermediaries between the time they left :
: the farmer and reached urban consumers. But in this period :
: new forces were developing that would shorten marketing chan- :
: nels for farm food products. Between 1880 and 1930, large :
: food processing companies were establishing branch houses in :
: the larger cities to sell directly to retailers. After :
: World War I, large retail food chains were integrating whole- :
: saling functions with retailing, buying food products direct- :
: ly from processors, country assemblers, and farmers. :
:
: Marketing channels for poultry, eggs, fruits and vege- :
: tables have become more direct than ever before, except in :
: the very early period of our country. Direct marketing of :
: livestock by producers to packers has been expanding since :
: the 1920's. The article that follows outlines the develop- :
: ment of our marketing channels for food from colonial times :
: to the present giving consideration to the dynamic factors :
: that prevailed in each period. :
:

A rudimentary marketing system was adequate to supply domestically produced food products to the small urban population of Colonial America. Farmers, local processors, and consumers performed most of the marketing tasks. Even the largest urban centers -- Philadelphia, Boston, New York, and Charleston -- were so small that they could be supplied mainly from the surrounding countryside. When the first Census was taken in 1790 only about 5 percent of the population of the country lived in urban areas of 2,500 or more inhabitants. The few people who were dependent on purchased foods generally bought either directly from farmers or from retailers, who bought from farmers. Many farmers peddled products

1/ Prepared by Forrest E. Scott, Agricultural Economist, and Willard F. Williams, Head, Marketing Information and Statistics Section, Mktg. Econ. Res. Div., Agr. Mktg. Serv.

from door to door or sold them in the public markets that were maintained by every settlement of any size. Local food processors, consisting mainly of grist mill and slaughterhouse operators, marketed a large part of their products directly to consumers.

Even in the early colonial period, however, some farmers produced more products than they were able to sell to consumers in their community. Country storekeepers assembled these surplus products and sold them to merchants in the seaboard cities or exchanged them for imported products. Sometimes these merchants conducted an exporting, importing, wholesaling, and retailing business. They bought products from millers, meatpackers, bakers, tanners, and other processors and sold them to retailers in the seaboard cities or exported them. Because of the small urban population, markets in the West Indies and Europe had to be found for a large part of the volume of products marketed by farmers.

As the country developed, longer marketing channels became typical; but the shorter channels remained in isolated areas and in new frontier communities. Even today these simple channels have not entirely disappeared. Some farmers and small processing plants still sell food products directly to consumers and retailers.

Lengthening of Marketing Channels

During the 19th century, the typical marketing channel for farm food products in the United States became longer and more complex than it had been in earlier days. Specialized marketing firms arose; large central markets for farm products were established. Growth in manufacturing and trade brought about the rise of urban centers. The inhabitants of these centers were too numerous to be supplied mainly with food products produced on nearby farms; locally produced supplies had to be supplemented by shipments from distant producing areas. At the same time, many farmers, particularly those in the newly settled West, were producing more than they could market locally. Simultaneously, a growing number of processing plants were dependent for raw supplies on distant markets. In this same period of growth, improvements in transportation facilitated commerce. After steamboats came into use on the Ohio, Mississippi, and other rivers, large volumes of farm products were shipped on river boats. First turnpikes, followed by the canals and railroads, connected producing, processing, and consuming centers.

Direct sales by farmers to consumers during the 19th century accounted for a decreasing proportion of the trade in food products. Public markets continued to function, mainly as a source of fresh meat, vegetables, and fruits, but an increasing number of the stalls were kept by persons who bought rather than produced the products they sold. More door-to-door peddlers now than formerly were small-scale merchants rather than farmers or processors. As the cities expanded, public markets became inconvenient for many urban families. An increasing number of housewives began to patronize neighborhood retail stores. Grocery stores, meat markets,

bakeries, fruit and vegetable stores, and other specialty retail food stores were opened in the growing cities and these tended to supplant the general store. City retailers in this period bought more from wholesalers, less from farmers.

In the 19th century, wholesalers handled an increasing proportion of the farm food products marketed. ^{2/} Many of the early merchants engaged in both wholesaling and retailing and in seaport cities often were both importers and exporters. Some wholesalers bought products from country assemblers, farmers, and processors, others handled products on a commission basis, and some did both types of business. Wholesale grocers assembled products from many small and widely dispersed processing plants. In the latter part of the 19th century, some wholesale houses sold products under their own brand. To obtain products of the desired quality and uniformity they had to maintain frequent contacts with processors, whom the wholesalers frequently financed. A few wholesale firms owned processing plants. They sent out salesmen to call on retailers. Many wholesalers extended credit to retailers. Because of the large scope of their operations, wholesalers overshadowed retailers and processors during most of the 19th century.

Grain buyers, livestock dealers, fruit and vegetable shippers, and other specialized country assemblers increased in number in the 19th century although many country storekeepers continued still to assemble farm products.

Large central markets for grain and livestock during the first half of the 19th century grew up on the waterways and railroads that connected producing areas with population centers in the East. In these markets, grain and livestock were sold both to processors and to dealers who shipped to markets in the East and abroad. Many market centers became meatpacking and milling centers. The Chicago Board of Trade, where grain was bought and sold, was organized in 1848, and the Union Stock Yard of Chicago was established in 1865. Commission merchants received grain and livestock on consignment from farmers and country assemblers; other wholesaler merchants bought and sold these products on their own account. A relatively large number of buyers and sellers traded in each market; their close contact enabled them to obtain knowledge of the market demand and available supplies. Prices established at these markets guided buyers at country points in fixing their offering prices.

Wholesale markets for fresh fruits and vegetables, eggs, and butter developed near rail yards and port facilities in the larger cities. Products were concentrated at these markets for inspection by buyers. Shipments to these markets from distant specialized producing areas increased rapidly in the 1890's, after the development of the refrigerator car. Products were shipped from wholesale markets in the larger cities to surrounding smaller cities.

^{2/} The term wholesaler is used in this article to designate several types of intermediaries in the marketing channel between country assemblers and retailers. It is applied to merchants who buy from processors and country assemblers of farm products and sell to processors, other wholesalers, and retailers. It includes merchants who take title to the product and also those who act only as agents.

As marketing channels lengthened, public attitudes toward marketing developed. Some farmers and consumers believed that many marketing intermediaries performed no essential functions and their participation made the price spread between farmers and consumers wider than it should be. ^{3/} Marketing channels involving several "middlemen" were a principal cause of the charge that marketing costs too much.

The Shortening of Marketing Channels

Direct Marketing by Food Processors

Selling by food processors directly to retailers increased as large food processing organizations were formed in the latter part of the 19th century. Large companies first appeared in the meatpacking industry. By 1900 the five largest companies bought nearly half of all slaughter animals sold in the United States. ^{4/} During the first three decades of this century large companies were organized in the baking, milling, canning, and dairy industries; others were formed to manufacture breakfast foods, vegetable oil products, chocolate products, and a variety of other specialty foods. Several of these large companies were formed by mergers of smaller companies. The large food processing companies packed their products in containers bearing their own trademarks and advertised nationally. Dissatisfaction with wholesalers' promotional activities apparently was one of the reasons some of the larger companies formed their own sales organizations. These companies believed wholesalers did not give their products sufficient attention and promotion -- wholesalers had to spread their sales efforts over too many products. Also the processors disliked "hand-to-mouth" buying -- a practice the wholesalers adopted after the drastic decline in prices early in the 1920's. This change forced processors to hold more of the inventory.

Food processing companies that adopted direct marketing established sales organizations and facilities for selling directly to the many small retail stores. Warehouses, commonly called branch houses, were maintained in the larger cities from which products were distributed to retail stores. The meatpacking companies had railroad car routes (and later truck routes) to supply retailers in smaller cities and towns. Refrigerator cars loaded with packinghouse products were sent out along regular routes to make deliveries to buyers along the way. Processing companies that had a relatively full line of products could sell to retailers more easily and at a lower selling cost than those having a more limited line. Economies of scale could be achieved in selling and distribution, as well as in production. The advantage of having a full line encouraged companies to diversify their product mix, sometimes by merging with companies that manufactured different products.

^{3/} Fred M. Jones, "The Development of Marketing Channels in the United States to 1920," Marketing Channels for Manufactured Products, (Richard M. Clewett, ed.), 1954, p. 54.

^{4/} A. C. Hoffman, Large-Scale Organization in the Food Industries, Temporary National Economic Committee Monograph 35, U.S. Government Printing Office, 1940, p. 15.

Direct Buying by Retailers

Formation of large retail food-store companies was a strong force in shortening marketing channels for food. Some companies in the 19th century operated chains of retail stores -- several of the present large retail food chains date from that period. The number of chainstores increased in the first 20 years of this century, and during the 1920's the number grew much more rapidly. ^{5/} By 1930 the large chains, and many of the small ones, were buying directly from processors, country assemblers, and farmers, or from their agents or brokers. Since 1930 additional chains have grown large enough for direct buying.

The direct-buying chains operate warehouses from which they distribute products to their stores. Central purchasing departments do most of the buying for the entire chain. Some chains operate bakeries, fluid milk plants, condenseries, and other processing plants; facilities for pre-packaging fresh fruits and vegetables; and warehouses in the producing areas for assembling butter, cheese, eggs, and other products. Even the larger chains, however, buy most of the processed products they handle. Many of the larger companies arrange with processors to manufacture products having certain specifications and packaged in containers bearing the chain's brand. Some chains take all the output of some processors.

Many independent retail stores and small chainstore companies belong to central buying organizations which give them many of the advantages of direct buying. Some wholesale companies have organized groups of retailers into "voluntary chains." Other retailers have formed cooperative groups owning wholesale organizations. A few of these groups have centralized buying and warehousing for nearly all the articles sold by their members, including fresh meats, some fresh fruits and vegetables, and some nonfood items. Some have arranged with processors for the manufacture of products having the groups' private brands. These groups generally have routine order forms and delivery schedules which reduce selling and delivery costs. A few of the voluntary-group wholesalers own chains of retail stores which they supply in addition to the voluntary-group stores.

One of the principal reasons why chains have adopted direct buying is that it gives them greater control over their supply. Since they buy in large lots, chains are able to arrange with manufacturers to make the type of product they specify. Buying from manufacturers and producing-area shippers frees the chains from dependence upon wholesalers for the type of product in the volume needed, at the time that it is needed.

Direct buying probably reduces procurement costs for the chains. ^{6/} The number of bargaining transactions and ownership transfers involved in

^{5/} Richard C. Clewett, "Mass Marketing of Consumers' Goods," Growth of the American Economy, (H. F. Williamson, ed.), 1951, p. 767.

^{6/} See p. 66 of reference cited in footnote 4.

moving products from producer to retailer is reduced by direct buying. Wholesalers' commissions and brokers' fees are eliminated although these savings probably are partly offset by expenses of direct buying. Some chains may make a saving by performing assembling, warehouseing and delivery functions more efficiently than the wholesalers. The possibility of saving in this way, however, may not be as great as by reducing selling and buying transactions, since direct-buying chains do the physical handling of the product formerly performed by wholesalers. Processors who sell most or all of their output to one or a few large volume buyers should have lower selling costs than firms that sell to a large number of small volume buyers, and lower selling costs may be reflected in lower prices.

Direct-buying has increased as the retail food chains have gained a larger share of the total grocery-store sales. Grocery stores belonging to chains of 11 or more units had about 33 percent of the total grocery-store sales in 1939 and 42 percent in 1958. ^{7/} According to estimates published by the Progressive Grocer, independent grocery stores affiliated with voluntary and cooperating groups had 45 percent of the total grocery-store sales in 1958, compared with 29 percent in 1947. ^{8/} Other estimates published by the Progressive Grocer indicates that about 90 percent of the stores belonging to chains of 11 or more units are supplied mainly by direct buying rather than by wholesalers.

Several developments that have facilitated direct buying are the following: (1) Improvements in motortrucks, especially the refrigerator trucks, and in highways; (2) improvements in means of rapid long-distance communication; (3) development of grade standards by which the physical characteristics of products can be described, and (4) greater availability of market news. Small chains and independent supermarkets that have sales too small to permit buying in carlots can handle a trucklot. Truck shipments go directly to the chain or supermarket warehouse; backhauls and handling are reduced. The development of quality standards and grades for processed and unprocessed agricultural products has made it possible to describe the quality characteristics of a product by telephone or other means of long-distance communication. By reference to grades a buyer can make purchases with a reasonable degree of safety without personal inspection of the product. The U.S. Department of Agriculture and State Departments of Agriculture have been developing quality standards and grades since before World War I. Product description by grade standards makes market news more meaningful and dependable as prices can be related to

^{7/} Compiled from the Census of Business, 1939 and the Survey of Current Business.

^{8/} Facts in Grocery Distribution, 1959 edition, published by Progressive Grocer. According to the Progressive Grocer estimates, independent stores unaffiliated with cooperative and voluntary chains had 16 percent of the total grocery-store sales and chainstores (those belonging to corporate chains having 11 or more units) had 39 percent in 1959. The Progressive Grocer includes country general stores selling food and delicatessen stores in the grocery-store category. This classification probably accounts for much of the discrepancy between the Progressive Grocer estimates and those of the Bureau of the Census, published in the Survey of Current Business.

products having specified quality characteristics. Reports by Federal and State agencies concerning prices, visible market supplies, shipments, and other market news from shipping points and terminal markets help both sellers and buyers.

More Direct Marketing for Farm Products 9/

Livestock and Meat

Terminal markets at Chicago, Kansas City, Omaha, South St. Paul, and other railroad centers dominated the marketing of livestock in the first quarter of this century. 10/ Most of the meat animals handled at these markets were consigned by producers to commission men who sold them to packers. Country dealers who bought from farmers also consigned to terminal markets. Large numbers of stocker and feeder animals also were consigned to terminal markets. The larger packing companies and many of the smaller ones had plants adjacent to these terminal markets. In 1923 (the earliest year for which data are available), the following proportions of federally inspected slaughter were bought by packers in terminal markets: Cattle, 90 percent; calves, 86 percent; sheep and lambs, 86 percent; hogs, 77 percent. 11/

Since 1923 the proportion of livestock marketed through terminal markets has declined. In 1956, the following estimated proportions of animals slaughtered in plants that had Federal inspection were obtained by packers at terminal markets: Cattle, 70 percent; calves, 37 percent; sheep and lambs, 45 percent; and hogs, 37 percent. 12/ During the 1920's, producers sold an increasing proportion of their livestock directly to packers and country dealers. In the 1930's the proportion they sold at nearby auction markets increased substantially. Producers in 1953 sold approximately 34 percent of their livestock at terminal markets, 26 percent at country auctions, 15 percent directly to packers, 15 percent to local dealers, and 10 percent to farmers and other buyers. 13/ Packers bought approximately 49 percent of the livestock handled at country auctions in 1955 -- 32 percent by means of packer buyers and 17 percent through order buyers. Dealers bought 10 percent of the total volume of livestock handled by auctions, part of which they sold to packers. 14/

9/ Only marketing channels which account for the bulk of the marketings are described in this article.

10/ Terminal markets (also known as public stockyards, terminal public markets, central markets, and public markets) are operated by private companies. Their facilities for holding, feeding, and selling livestock are available to any buyer or seller willing to pay the posted charges.

11/ Victor B. Phillips and Gerald Engelman, Market Outlets for Livestock Producers, U.S. Dept. Agr., Mktg. Res. Rpt. 216, Mar. 1958, p. 3.

12/ See p. 5 of publication cited in footnote 11.

13/ See p. 11 of publication cited in footnote 11.

14/ Gerald Engelman and Betty Sue Pence, Livestock Auction Markets in the United States, U.S. Dept. Agr., Mktg. Res. Rpt. 223, Mar. 1958, p. 20.

Since the early 1920's interior packing plants (those not located near the large terminal markets) have received an increasing proportion of the slaughter livestock marketed by producers. Sales of hogs to interior packers increased more than sales of other species. The interior packers made the bulk of their purchases of livestock directly from producers and dealers and at auction markets. They also bought some livestock at terminal markets. To compete with interior packers for supplies of livestock, terminal market packers increased their direct buying. They sent buyers into the producing areas to buy at the producers' farms, concentration yards, country auctions, and other points. They also made arrangements with other buyers to buy for them. In recent years the larger packers have built and bought plants at interior points.

Among the principal reasons for the increase in direct marketing of slaughter livestock were:

1. The use of trucks and improvements in highways made deliveries directly to interior packing plants easier for farmers. Before trucks came into use producers generally found it advisable to ship their livestock to markets with which they had the most direct rail connections. Furthermore, truck transportation was better adapted than rail transportation to the shipment of small lots.
2. Radio market news reports which became common in the 1920's aided farmers to select among alternative markets.
3. By selling to country buyers producers avoid long-distance shipping costs, terminal market yardage charges, selling commission, and other charges. Some producers believe higher prices received in terminal markets often do not compensate for these charges.
4. In sales to interior packing plants, order buyers, and other country buyers, agreements on prices are reached before livestock leave the farm. Livestock shipped to a terminal market are committed for sale at a price not definitely known when they leave the farm.
5. Shrinkage in weight is less when livestock is sent to nearby markets rather than to distant terminal markets.

Although sales at terminal markets now represent a smaller proportion of total sales than formerly, these markets still are important outlets for livestock. They are particularly significant as price registering points, because market news reports from terminal markets are widely disseminated.

Direct buying of meat.- In 1929 commercial meatpackers made almost half of their sales of red meat through their branch houses. ^{15/} Since

^{15/} Willard F. Williams, "Structural Changes in the Meat Wholesaling Industry," Journal of Farm Economics, May 1958, p. 322.

that year this proportion has decreased and the proportion made directly from the packing plant to retailers and other large buyers (hotels, restaurants, institutions, etc.) has increased. In more recent years, the proportion of total sales made by packers to independent wholesalers and jobbers has increased. By 1954 packers distributed only about a fifth of their output through branch houses. Retailers obtained more than three-fifths of their supply directly from packing plants, about a fifth from branch houses, and a little more than an eighth from independent wholesalers and jobbers. Between 1929 and 1954 the number of packer branch houses declined by more than two-fifths.

The increase in the number of large retail food chains was a principal factor causing reduction in the proportion of packers' output distributed through branch houses. Among the other factors were improvements in truck transportation and refrigeration; development and wider use of official carcass grades for beef, veal, and lamb; improvements in wholesale market news; and growth in the number of specialized, independent wholesale meat distributors. These changes facilitated sales by small packers to buyers throughout the United States, so they were no longer limited to local markets.

Poultry

Many retail chains and some of the larger independent food retailers now buy ready-to-cook poultry directly from country processing firms; other retail stores, institutions, and restaurants buy from city wholesale distributors who, in turn, buy directly from processing plants in producing areas. Many of these processing plants obtain nearly all of their chickens and turkeys directly from producers. Thus, the marketing channels that account for most of the volume have only one or two intermediaries between producers and retailers.

These marketing channels are considerably shorter than the channels typical for chickens 20 years ago. In 1939 about half of the volume of dressed chickens handled by retailers came from city processing plants.^{16/} These plants bought live chickens mainly from city wholesalers who received them mostly from country assemblers. Country assemblers, also known as shippers, assembled chickens from local buyers and farmers. Other retailers bought from wholesalers of dressed chickens, and the wholesalers obtained dressed birds from city processors. Thus, three to five marketing agencies participated in the movement from farm to retailer. Also, some retail stores bought and dressed live chickens. These marketing channels have all but vanished; the number of live chickens shipped to cities has declined greatly as also has the number of city processing plants. In 1939, some city wholesalers of dressed chickens obtained their supply from country processing plants, but the volume of dressed chickens bought by retailers directly from country processors was negligible.

^{16/} E. P. Winter, Marketing Margins and Costs for Poultry and Eggs, U.S. Dept. Agr., Tech. Bul. 969, Nov. 1948, p. 8.

Marketing channels in 1939 generally were shorter for turkeys than for chickens. Most of the turkeys sold in city retail stores were raised and processed in concentrated producing areas. Plants in these areas bought turkeys directly from specialized producers and sold dressed birds to city wholesalers. However, the volume sold directly to retail firms was small.

In many instances direct buying shortens the time between slaughter of the birds and delivery at the retail store, so birds are fresher when received. Direct buying gives the larger firms more assurance of obtaining the type of product wanted at the time needed. The establishment of large processing firms in the producing areas has made direct buying easier.

The growth of the broiler (frying chicken) industry and technological innovations in processing and transportation have caused the shift of processing from cities to producing areas, and have brought the decline in shipments of live chickens. Nearly all of the chickens sold in retail stores today are broilers that have been raised in concentrated producing areas. These areas are relatively small geographically but the production is sufficient to supply large-scale plants. Producers in these areas are located close together and each sells large numbers of chickens at one time to processing plants. Many of the plants in the producing areas are larger than any city plant and can use efficiently machinery and processing methods which are not applicable in small-volume plants. Improvements in motortrucks, highways, and refrigeration equipment have strengthened the competitive position of country plants. Country plants also have advantages relative to city plants in (1) lower cost of assembling live birds in volume directly from producers, which offset higher costs of distributing ready-to-cook birds, (2) lower wage rates, (3) lower land costs and taxes, and (4) less shrinkage in weight in moving live birds from farms to nearby plants.

Eggs

Larger chains now generally buy eggs directly from country shippers. A decreasing number buy bulk eggs and do their own grading and cartoning at city plants. A few chains have their own country plants and buy eggs directly from producers. Chains buy eggs directly from sellers in the producing areas for the same reasons they have adopted direct buying of poultry and fruits and vegetables. Direct buying provides them with a fresher product, gives them more assurance of obtaining the desired quality and volume when needed, and reduces their procurement costs.

Smaller chains and independent retail stores generally buy eggs from city receiver-distributors who receive eggs from country shippers and deliver to retail stores. Some distributors receive bulk eggs which they grade and pack in cartons, but an increasing number receive eggs graded and cartoned by country shippers. Some city distributors have their own grading and packing plants in producing areas. In Los Angeles, San Francisco, and Seattle retail stores obtain nearly all their eggs from plants of assembler-distributors located in nearby concentrated producing areas.

Many retail stores in the larger cities 20 years ago bought eggs from jobbers who, in turn, bought bulk eggs from city wholesalers. Jobbers candled the eggs, packed them in retail-size containers, and made deliveries to retail stores. City wholesalers who sold to jobbers received car- or trucklot shipments from country shippers. Many of the eggs were produced in areas where individual farmers had only small volumes to sell, so shippers generally had to assemble eggs from a wide area. They bought eggs from country stores, feed stores, and other local buyers and maintained their own buying stations at various points to buy directly from farmers and other buyers.

A growing proportion of the eggs marketed today are being graded and cartoned at country plants because these functions can be performed there more cheaply than in city plants. Lower wage rates, taxes, and other costs give country plants an advantage. But the main advantage in carton- ing eggs at country plants is that it reduces the total labor and equipment cost for the entire marketing process by decreasing the number of times eggs are physically handled in moving from farms to consumers. In the last 20 years the production of eggs has become somewhat more concentrated in relatively small areas having specialized, large-volume producers. Plants in these regions can assemble large volumes of eggs directly from nearby producers. Many of these large plants have equipment for handling, sizing, and cartoning eggs which would be uneconomical for plants with a small volume. Their assembly costs generally are lower than those of plants in areas where eggs must be assembled from a much larger number of producers. To obtain top quality eggs in the volume needed, a growing number of country assembler-distributors have contracts with producers. These contracts specify the minimum size of flocks, standards for feeding and care of hens and for handling of eggs, and marketing terms.

Fruits and Vegetables

Some of the larger retail food chains have been buying fresh fruits and vegetables directly from country shippers and farmers since the 1920's. Other chains bypassed city wholesalers when their volume grew large enough to justify direct buying. Increases in the number of direct-buying chains and growth in their volume of purchases have greatly expanded the total volume of direct buying. According to rough estimates, direct purchases of fresh fruits and vegetables by corporate chains in recent years have accounted for approximately 30 percent of the total receipts of these products in 17 major cities, compared with 15 percent in 1936. A growing number of the cooperative and voluntary chains buy some items directly.

Chains usually ship the fruits and vegetables they purchase at shipping points directly to their warehouses. The largest chains do much of their direct buying through their own salaried buyers stationed in producing areas, and a few operate packing houses. Medium-sized chains frequently buy from country shippers or through buying brokers at the shipping points.

Marketing channels of direct-buying chains are considerably shorter than those through which many independent retail stores and stores of the

small chains receive their produce. These stores buy from: (1) A city wholesaler who receives car- or trucklot shipments from country points, or (2) a jobber who obtains his supplies, in turn, from carlot receivers or, in a few cities, from an auction market. Thus, two city dealers may take title to produce before it is sold to the retailer, and each may unload, display, and load it at his place of business. However, the channel involving both jobber and wholesaler now accounts for a much smaller proportion of the total volume than formerly.

Terminal market dealers now handle a smaller proportion of the supply of fresh fruits and vegetables than formerly, and the total supply has not increased much in the last 20 years. Increases in the volumes of fruits and vegetables processed have held down marketings in fresh form. The proportion handled by terminal market dealers has declined because of direct-buying by retail chains and, in addition, many smaller markets formerly supplied mainly by shipments from terminal markets now receive truck shipments directly from producing areas.

Auction markets now are in operation in nine of the large eastern and midwestern cities, compared with 12 in 1935. Fruits make up the bulk of the sales at these markets. The volume handled by these auctions declined from about 76,000 carlots in 1950 to 55,000 in 1957. About 74 percent of the auction sales in 1956 were made to wholesale handlers; 18 percent to retailers, including restaurants and institutions, and the remainder to buying brokers (principals unknown). 17/

Terminal markets, however, still play an important role in the marketing of fresh fruits and vegetables. Both large and small chains do some buying from city market dealers. The larger chains buy from these dealers if larger quantities are needed than have been purchased directly. Also they may buy some specialty items for which sales are small. Smaller chains may buy from city dealers all but a few fresh fruits and vegetables, such as potatoes, onions, and citrus fruits, that are sold in large volume. The smallest chains and independent retailers generally buy all their fresh fruits and vegetables from city dealers.

One of the reasons why chains buy fresh fruits and vegetables at shipping points is to enable them to obtain the quality of product needed in adequate volume at the time needed. This is often a reason for direct buying when a large chain plans to have a "special" on a product. It would not want to depend on terminal markets where the supply is made up of relatively small lots of widely varying quality. Also direct buying avoids terminal market brokerage fees and other selling costs. Handling costs in terminal markets often have been notoriously high because of inadequate facilities, traffic congestion, and high cartage charges. Many of the larger cities have several "markets." Their decentralization makes assembling and distributing products more costly and price determination less efficient. Since World War II, several cities have built new public markets, but in the markets of some of the largest cities few improvements have been made.

17/ Alden C. Manchester, The Changing Role of the Fruit Auctions, U.S. Dept. Agr., Mktg. Res. Rpt. 331, June 1959, pp. 4-11.

Outlook for Greater Use of Shorter Marketing Channels

Food Chains Expected to Increase Direct Buying

Continuation of the following trends in food retailing are expected to increase the proportion of retail food stores supplied mainly by direct purchases from manufacturers, country assemblers, and farmers:

1. The number of corporate chains large enough to engage in direct buying is growing. Small chains are growing larger by acquiring independent stores and stores of other chains and by building new stores. The advantages of being large enough to warrant direct buying and private brands often have provided a motive for expansion.
2. Corporate chains and independent stores belonging to voluntary and cooperative groups continue to gain a larger proportion of the total grocery store sales. Many of the independent stores unaffiliated with voluntary and cooperative groups may be too small to compete successfully with larger stores, and their number probably will decrease further, causing a shift of sales to corporate chainstores and "affiliated" independent stores. Recently some food chain organizations have opened "bantam" food markets in several localities. These markets offer the advantages that small stores offer to some consumers and may provide especially strong competition for small independent food stores. The bantam markets aim to provide quick, convenient service to customers. Many stay open from early morning to late at night, 7 days a week.

Some chains that are large enough for efficient direct buying now do little or none of it. This is particularly true of cooperative and voluntary chains in the direct buying of fruits and vegetables. A considerable expansion in direct buying would result from a change in policy by these firms. Additional chains are likely to make buying arrangements with processors and other suppliers who are willing to pack under the retailer's private brand.

Retail chains are expected to step up direct buying of eggs and fresh fruits and vegetables. The proportion of eggs graded and cartoned at country plants will increase because of the advantages these plants have relative to city plants. More country assemblers of eggs and fresh fruits and vegetables probably will enter into agreements with producers in order to increase their control over the quality and volume of product produced.

Prospective Increase in Direct Marketing of Livestock

Packing plants located in livestock producing areas are expected to account for a larger part of the total output of red meats in the years ahead. These plants obtain a greater part of their supply of meat animals by direct buying from producers and buying at country auctions than do packers located at terminal markets. Interior plants often have

several advantages relative to terminal market plants. Among these advantages are: (1) Lower costs of plant sites, (2) lower overhead costs, and (3) less difficulty in obtaining a stable supply of animals throughout the year. ^{18/} Improvements in refrigerated trucks and in highways have made shipping of finished products easier for these plants. Since World War II, furthermore, rail freight rates for meat have not risen as much as those for livestock. The smaller increase in rates for meat favored the interior packers relative to packers obtaining meat animals from more distant points. Recently some railroads established higher minimum weights per carload of fresh meat and reduced rates per 100 pounds for cars loaded to these new minimum weights. ^{19/}

Growth in the number of large-scale livestock producing units probably will increase direct marketing. Producers who market livestock at frequent intervals during the year generally acquire more skill in marketing than do farmers who sell once or twice a year. Producers who have acquired this skill are likely to prefer direct marketing rather than consignment to a terminal market commission agent. Since World War II output of feedlots in the West turning out from 1,000 to 30,000 or more head of cattle has grown until now they account for the major proportion of the cattle fed in that area. A large proportion of these cattle move directly to packers. Large commercial feedlots have been established in other parts of the country, but the number in these regions has grown much less rapidly than it has in the West. Specialized farms producing 500 to 2,000 or more hogs each year have increased in number. Further increases in the numbers of these large-scale producing units are anticipated.

Prospects for Wholesalers

Sales of food wholesalers generally have not decreased in recent years in spite of direct buying by retail food chains. Those of grocery, confectionery, and meat wholesalers rose about 5 percent from 1957 to 1958. ^{20/} The Census of Business showed that sales of specialty line grocery wholesalers increased more than those of general line wholesalers between 1948 and 1954. According to estimates published in the Progressive Grocer, 2,640 wholesale grocery firms were operating in 1958. Of these 2,640 firms, 545 sponsored voluntary retail groups, 195 were cooperative wholesalers, and 1,900 firms were not affiliated with retail groups. ^{21/}

The Census of Business showed that sales in most lines of food wholesaling increased between 1948 and 1954 (the latest year for which data are available). Price increases accounted for part of the rise in dollar sales from 1948 to 1954, but the quantity of products also must have

^{18/} Harold Abel, Shifts in the Trade in Western Livestock, U.S. Dept. Agr., Agr. Inform. Bul. 14, 1950, p. 21.

^{19/} Mildred R. DeWolfe, "Recent Changes in Rail Freight Rates on Farm Products," The Marketing and Transportation Situation, July 1959, p. 40.

^{20/} Bur. of the Census, Monthly Wholesale Trade Report, December 1958, Feb. 1959.

^{21/} Facts in Grocery Distribution, 1959 edition, published by Progressive Grocer.

increased. Wholesalers affiliated with voluntary and cooperative groups had a larger share of the total sales of grocery wholesalers in 1954 than in 1948.

Sales to hotels, restaurants, institutions, and other buyers other than retail food stores account for a larger proportion of the wholesale food trade now than in earlier years. Prospective increases in per capita income and in the proportion of the people working away from home may cause sales of restaurants and other eating places to increase faster than the population in the years ahead.

Problems Arising from Direct Marketing

The trend toward direct marketing has created many problems for farmers, marketing firms, and the U.S. Department of Agriculture and State Departments of Agriculture. Among these problems are:

1. Because of increases in direct marketing, trading in butter and eggs on the New York and Chicago Mercantile Exchanges and central markets in some other cities has declined to low levels. Some market observers contend that the number of traders and volume of sales are so small that prices in these markets may often differ from the price that supply and demand conditions warrant. Yet many standing agreements between country shippers of these products and city receivers specify that the price paid for shipments shall be the price at one of these Exchanges or some other central market plus a designated premium.
2. In many country sales of farm products the seller obtains a bid from only one buyer. Unless the farmer has adequate knowledge of prices being paid in other transactions for products of the same quality he may accept a price that is lower than he could have obtained from other buyers.
3. Although market news reports of available supplies, shipments, and prices at some local shipping points are furnished farmers and dealers by Federal and State agencies, now that a growing volume of products bypass terminal markets, more shipping point market news should be provided. How can price and sales data be collected, summarized, and reported at a feasible cost?
4. The large retail chains probably will buy an increasing proportion of the output of some products. These chains prefer to buy from sellers who can supply a large volume of products having uniform, specified characteristics. They are likely to increase their efforts to obtain such a supply by making buying arrangements with shippers and producers. Products meeting their specifications may receive price premiums, as long as the supply is relatively limited. Many farmers must decide how to adjust their production and marketing programs to large-scale buying practices. Some may need to increase their volume of output by greater specification in production. Producers and country assemblers will need to do more sorting and grading to obtain standardized products.

TRENDS AND PROSPECTS FOR MARKETING TEXTILES 1/

Market Outlets

Market outlets for American cotton and wool continue to be restricted by greatly increased competition from cotton and wool produced in other countries and from manmade fibers produced in the United States and abroad. Among the factors that adversely affect market outlets for these products are increases in production of foreign-grown cotton and wool and of manmade fibers, improvements in the quality or suitability of these fibers, and availability of increased quantities of the competing products at attractive prices.

The proportion of total world production of cotton, wool, and manmade fibers accounted for by American cotton decreased from more than 50 percent in the early 1930's to less than 20 percent in the late 1950's. The corresponding proportion for domestic wool decreased from 1.4 percent to 0.4 percent, whereas the proportion for manmade fibers increased from less than 5 percent to more than 20 percent during this period. Further increases in production of foreign-grown cotton and wool and of manmade fibers are to be expected.

Prices of cotton and wool produced in the United States in most recent years have been maintained above their normal free-market relationship with those of other growths, and prices of manmade fibers have declined in relation to domestic prices of cotton and wool. Equivalent prices of rayon staple fibers declined from an average of 118 percent higher than those of Middling 15/16-inch cotton during the 5 years ended July 1939 to 20 percent below prices of this cotton during the 5 years ended July 1958. Prices of rayon staple fibers averaged about 36 percent of prices of fine good French combing and staple wool during the 5 years ended with 1938 and declined to an average of 26 percent during the 5 years ended with 1958. Prices of other manmade fibers, especially the newer noncellulosic ones, declined in recent years as much as, or more than, prices of rayon relative to those of cotton and wool.

Changes in price relationships were associated with substantial increases in consumption of foreign-grown cotton and wool and of manmade fibers in relation to consumption of American cotton and wool. The proportion of total world consumption of all cotton accounted for by American decreased from an average of 57 percent during the 5 years ended with 1932 to about 30 percent during the 5 years ended with 1958. Consumption of wool produced in the United States decreased from about 10 percent of the world total for all wool during the 5 years ended with 1938 to 6 percent during the 5 years ended with 1958.

1/ Prepared by L. D. Howell, Agricultural Economist, Mktg. Econ. Res. Div., Agr. Mktg. Serv. This article is based mainly on information contained in U. S. Dept. Agr. Tech. Bul. No. 1210, which is expected to be available for distribution by the end of 1959.

In the United States, consumption of manmade fibers increased from less than 3 percent of that for cotton during the 5 years ended in 1939 to 40 percent during the 5 years ended with 1958. Domestic mill consumption of manmade fibers increased from about 81 percent of that for wool during the 5 years ended with 1938 to about 435 percent during the 5 years ended with 1958.

Prospects and Problems

It is apparent from these developments that cotton and wool produced in the United States are confronted with greatly increased competition. With the prospect of further expansions in production of competing products, inadequate market outlets for our cotton and wool at remunerative prices may continue to limit the cotton and wool industries in this country, unless prompt and effective actions are taken to maintain or expand consumption of these products. Given a reasonably prosperous peacetime economy and further increases in population, prospective demands for textiles indicate the possibility of maintaining or expanding consumption of our cotton and wool, if all potential market outlets are fully exploited.

To exploit fully these outlets for cotton and wool would require:

(1) Adequate and dependable supplies of suitable qualities of raw cotton and wool, readily available to manufacturers at competitive prices; (2) efficient manufacture of a variety of suitable and attractive cotton and wool fabrics, appropriately finished and made available at attractive prices for use in industry and in fabricating apparel and household products; (3) suitable and attractive styling and good construction of apparel and household products made of cotton and wool fabrics; (4) education of consumers regarding the quality, variety, and adaptability of these products; (5) timely adjustments in the manufacture and distribution of these products to meet consumer requirements; and (6) increased efficiency in the entire chain of marketing, manufacturing, and distributing procedures so that a variety of suitable and attractive products made of cotton and wool are made readily available to consumers at competitive prices.

Cotton and wool compete with manmade fibers and other products as raw materials, as yarns and fabrics, and as fabricated products. Effectiveness of this competition may be largely influenced by differences between the quality, suitability, and prices of cotton and wool and their products and the quality, suitability, and prices of competing products. Among important factors that may affect the quality, suitability, and cost of textile products at each stage of marketing, manufacturing, and distributing are the size and organization of the operating units, techniques and equipment used, and operating methods and practices, along with the kinds and qualities of materials used.

Taking cotton and wool from farms and ranches and delivering them in the form of finished clothing and household textiles to ultimate consumers require the services of assembling and merchandising raw cotton and wool, manufacturing yarns and fabrics, fabricating apparel and household textiles, and distributing the products to ultimate consumers. Combined charges for these services for cotton products decreased from about 91

percent of the consumer's dollar spent for these finished products in 1938 to about 84 percent in 1951 and amounted to about 85 percent in 1957. Similar margins for wool products decreased from about 88 percent in 1939 to 86 percent in 1957. Charges for marketing raw cotton and wool accounted for about 3 percent of the consumer's dollar in 1957. Those for manufacturing yarns and fabrics and for fabricating apparel and household textiles accounted for 42 percent and those for wholesale and retail distribution accounted for 41 percent of the consumer's dollar that year.

The size of these margins and the seriousness of the threat of increased competition from manmade fibers and other products emphasize the importance of information that will show the influence of the different factors on the efficiency and costs of marketing and that will indicate means of improvement. Such information relating to the services at each important stage of marketing, manufacturing, and distributing procedures for cotton and wool is presented in about the order in which the services are rendered.

Marketing Raw Cotton and Wool

Cotton

Charges for marketing raw cotton increased from an average of 2.6 cents a pound of lint in 1939 to 6.5 cents in 1957. These charges increased further in 1958. The proportion of the cost of cotton to mills accounted for by these charges increased from about 12 percent in 1947 to 19 percent in 1957.

Changes made in ginning and merchandising cotton have been considerable since 1945. From 1945 to 1959, the number of cotton gins in the United States decreased about 40 percent and average number of bales ginned per gin plant increased about 140 percent. The proportion of the crop that was rough-harvested increased from about 24 percent in 1947 to about 56 percent in 1958 and the number of gins with equipment for conditioning and cleaning seed cotton increased considerably during this period. Gins with equipment for cleaning lint cotton increased from less than a third in 1954 to more than half in 1957, and further sharp increases in 1958 and 1959 are indicated. The number of automatic samplers at gins increased from less than 50 in 1957 to more than three times that number in 1958. Gins with equipment for compressing cotton to a smaller volume increased from 109 in 1956 to about 130 in 1959. During the 1950's, the number of cotton shippers has decreased, direct buying in producing areas by mills has increased, and the demand for measures of fineness and strength of fibers as a basis for buying and selling has increased. In the 1956-57 marketing year, about 57 percent of the 9.1 million bales obtained by shippers in the open market were sold on the basis of fineness measurements and more than 60 percent were sold on the basis of minimum strength specification. About 73 percent of the 6.5 million bales obtained from the Commodity Credit Corporation were tested for fineness of fibers after purchase.

Additional changes needed include: (1) Improvements in the operation of suitable conditioning, cleaning, and ginning equipment; (2) utilization

of this equipment to nearer full capacity for a longer time per year; (3) use of improved automatic samplers and higher density presses at more of the larger gins; (4) installation of improved facilities and equipment for handling cotton at additional compresses and warehouses; (5) improved bagging and handling practices for bales to reduce contamination of lint; and (6) development of more adequate and dependable classification (based on reasonably adequate measures of all important quality elements) and market information services upon the basis of which the sale and purchase of cotton on description can be expanded.

Wool

Charges for marketing raw wool increased with advances in prices, and in 1957 they averaged about two-thirds greater than in 1946. Charges for marketing grease wool sold in original bags in 1946 averaged 6.8 cents a pound, or 16 percent of the Boston price. Charges for graded and scoured wool averaged more than those for grease wool sold in original bags by amounts approximating charges for grading and scouring.

Developments since the end of World War II in marketing raw wool include more preparation of wool for marketing in producing areas, especially grading, coretesting, scouring, and baling. Grading of wool at warehouses is becoming more common and necessary and in 1956 more than a third of the wool handled by warehouses in producing areas was graded. Coring bagged wool to obtain samples for use in determining the yield and quality of the wool increased markedly in the postwar period and in 1956 almost a third of the wool handled by warehouses in producing areas was coretested. The scouring of wool in producing areas increased during the 1950's; in 1956, about a fifth of the wool handled by warehouses in Texas was scoured, about a tenth of that handled by warehouses in the 11 Western States, and smaller proportions of that handled by warehouses in Central and Eastern States.

The baling of wool into denser packages to facilitate handling, storage, and transportation increased markedly during the middle and late 1950's. In 1956 more than half of the wool handled by warehouses in Texas was baled. About a tenth of that handled by warehouses in the 11 Western States and smaller proportions of that handled by warehouses in Central and Eastern States were baled that year. Since 1956 several warehouses have installed balers for wool. Marked changes in transportation facilities used were associated with increases in proportion of the wool baled. In Texas, for example, before 1952 practically all the wool produced was shipped to eastern markets by rail or water, but by 1956 almost all of Texas wool was shipped by truck.

Additional changes needed include: (1) Improved preparation of wool for marketing and manufacture at or near points of origin; (2) increased use of improved facilities and equipment for handling, preparing, and storing wool at warehouses; (3) improved packaging of wool, including more compressing into suitable bales to facilitate handling, transportation, and storage; (4) the use of suitable bagging to prevent contamination of the wool; and (5) development of more adequate and dependable classification

and market information services upon the basis of which the sale and purchase of wool on description can be expanded.

An adequate classification and market information service would require: (1) That differences in all important quality elements of wool be ascertained and evaluated; (2) that the sample used be truly representative of the quality or qualities of wool included in the lot and that it be correctly identified with the lot from which it was taken; (3) that the evaluations be made in accordance with uniform standards upon the basis of which differences in all important quality elements of wool can be described for commercial purposes with reasonable accuracy; (4) that the evaluations be made by competent and reliable classifiers under conditions conducive to accurate evaluation; and (5) that facilities be provided for taking and assembling the samples, recording the evaluations on convenient forms, and for making this information available to sellers and to buyers in time for them to use it in selling and buying the wool.

Manufacture of Yarns and Fabrics

Gross margins of manufacturers of cotton and wool yarns and fabrics decreased from an average of about 15 percent of the retail value of the finished apparel and household textiles made of cotton and wool in 1947 to about 13 percent in 1957. With advances in wage rates and other developments, proportions of these margins that were accounted for by costs of labor increased markedly through 1957. Average value added by manufacture per dollar of wages decreased from 1947 to 1957 despite substantial improvements in plant and equipment.

Improvements in the manufacture of yarns and fabrics may result from modernizing the equipment, organization, and manufacturing operations, and from using the qualities of raw materials relatively best adapted, physically and economically, to the production of specified products.

Improvements in equipment and in manufacturing operations have been made in recent years, but further modernization is greatly needed. Reports of editors of Textile World indicate that during the 10 years 1948-57, the textile industry spent \$4.4 billion for new plant and equipment, about \$3.5 billion of which was for machinery, and productivity per man-hour rose 67 percent. Yet it was estimated that fully 65 percent of the textile manufacturing equipment was obsolete in 1957. Textile manufacturers who were replacing old facilities with new plant and equipment in 1958 indicated that 37 percent of them expected these replacement expenditures to pay for themselves in 1 or 2 years, 47 percent in 3 to 5 years, and 16 percent in 6 or more years.

Mergers and acquisitions in the textile industry in recent years have changed the organization and management of many operating units engaged in the manufacture of yarns and fabrics. These changes reached relatively high rates in the late 1940's and middle 1950's and were associated with some decreases in average size of manufacturing establishments, as measured by number of employees. Census data for 1954 show that 38 percent of the mills processing cotton, rayon, and related fibers, with less than 11 percent

of the looms, did weaving only. Half of the mills, with 74 percent of the looms and 84 percent of the spindles, manufactured yarns and also wove the yarn into fabrics. Only about 12 percent of the mills finished the yarns and fabrics manufactured. In wool manufacture, about 75 percent of the mills, with more than 75 percent of the looms, manufactured yarn and wool into fabrics.

The use of more suitable qualities of cotton and wool in the manufacture of specified products is needed to improve efficiency. A determination of the more suitable qualities of cotton and wool for these products might well be based on detailed analysis of mill operations, under controlled conditions, to show differences in value for mill purposes of cotton and wool of different qualities. Differences in value for mill purposes are based on differences in processing costs and in quality or value of the products, as a result of differences in quality of the cotton or wool used. Data showing such differences in value for mill purposes and data showing differences in costs of the cotton or wool used as a result of differences in quality, would need to be combined to show the quality of cotton or wool relatively best adapted to the production of specified products. Some progress has been made in developing techniques for measuring differences in some properties of cotton and wool fibers. But techniques need to be developed for measuring other important quality elements of cotton and wool and for more accurate evaluations of most of the quality elements.

Some of the more promising means of increasing efficiency and reducing costs of manufacturing cotton and wool yarns and fabrics include: (1) Increased use of new and modern machinery, especially the automatic types; (2) some modernization of buildings and arrangement of machinery for more direct flow of work and more efficient operation; (3) full machine assignment per man and equalization of reasonable workloads for employees; and (4) adjustments in size of operating units and in variety of yarns and fabrics produced. A 1958 report on operating costs in the textile industry indicated that by the use of these means labor costs to mills can be cut by amounts ranging up to 80 percent in the various manufacturing operations.

Manufacture of Apparel and Household Textiles

Gross margins for manufacturers of apparel and other fabricated textile products increased somewhat in recent years; in 1957 they amounted to 29.5 percent of the retail value. The proportion of gross margins accounted for by costs of labor increased from 35 percent in 1947 to 39 percent in 1954. Average value added by manufacture per dollar of wages increased from 1939 to 1947, with marked advances in retail prices, then decreased to 1957, despite substantial improvements in machinery used.

Improvements in the manufacture of apparel and related products might well include more attractive styling and good construction of products, installation and use of modern facilities and equipment, adjustments in sizes of plants to facilitate effective use of the more efficient equipment and methods, and development of labor-relations programs that would enlist the cooperation of both labor and management in formulating and carrying out plans to modernize establishments for efficient operation. Modernization

of plants might well be supplemented by in-service training programs to improve the skill of employees; by (1) assigning the right men to the right jobs, so as to utilize fully the natural capacities and developed skills of employees; (2) systematic advancements in accordance with ability and demonstrated performance, to encourage initiative and efficiency; and (3) prompt and effective means for locating and removing causes of labor turnover and costly slowups in production. Modernization of plants and utilization of workers to their full potentialities, to the mutual benefit of workers and management, apparently offer important means of reducing costs of manufacturing apparel and household textiles.

Combining two or more of the successive links in the chain of manufacturing and distributing processes for fabricated textile products may be an important means of achieving economies and a closer linkage between production planning and ultimate consumer requirements. Developments during World War II were favorable, in some respects, to the extension of unified control. Integration in the textile industry in the middle 1950's apparently indicates a continuing, and perhaps a growing, interest in possibilities of further combinations. Census data for 1954 show that the value added by manufacture of women's and children's clothing and of men's and boys' clothing per dollar of payroll averaged greater for multiunit than for single-unit companies. For multiunit companies, value added per dollar of payroll averaged greater for multi-industry companies than for single-industry companies. But additional information relating to economic possibilities of, and limitations to, both horizontal and vertical integration is needed as a basis for adequate appraisals.

Wholesale and Retail Distribution of Textiles

Gross margins for wholesale dry goods houses increased in recent years and averaged about 17 percent of net sales in 1957, compared with 16 percent in 1939 and a high of almost 19 percent in the early 1940's. Margins per dollar of sales usually average less for establishments with large volume of sales than for those with small volumes. Selling and administrative expenses account for most of the wholesalers' gross margins. Profits usually amount to less than 3 percent of net sales.

Retailers' gross margins, as indicated by data for department stores, averaged 36.2 percent of net sales in 1958, about the same as in other recent years but somewhat above the low point of 35.2 percent reached in 1949. Payroll expense, the largest item of cost, averaged 18.0 percent of net sales in 1958, about the same as in other recent years but somewhat higher than the low point of 15.4 percent in 1945. Operating profits, amounting to 2.4 percent of net sales in 1958, were only slightly lower than those in the preceding 5 years; but they were lower than those in any other year since 1952.

Means of reducing costs of distributing textile products include methods of increasing the general efficiency of existing agencies, concentration of services in the hands of agencies or combinations of agencies that can render them most efficiently, and reductions in "unnecessary" services. Improvements in general efficiency of the

agencies involve problems of organization and operation, selection and management of personnel, location of places of business, number and kinds of commodities handled, volume of operations, and purchase and sales policies, among others. Detailed information on the influences of each important factor on efficiency and costs is needed to indicate the extent to which it would be feasible to bring about improvements and the most effective means for achieving them.

Wholesalers' gross margins may be reduced by adjusting to more nearly optimum the volumes handled, particularly by the smaller operators. In 1954, operating expenses per dollar of net sales of apparel by merchant wholesalers averaged about half as great for operators with annual sales of over \$2 million as for those with annual sales of less than \$50,000. Although factors other than size may also be involved, a part of these differences in operating expenses may result from differences in volume of sales.

Retailers' margins might be reduced by simplifying the selling process so as to permit and encourage self-selection and self-service by customers. This simplification may be facilitated by open display of merchandise, arranged on the basis of consumers' primary interests, such as size and price, and by arrangements for payment at a convenient desk set up for that purpose. Such simplification makes possible reductions in retail margins mainly by reducing payroll costs, which average more than half of the total operating expenses of retailers. Accurate labeling to show the quality and size of the products, on the basis of adequate standards, would facilitate self-service methods. These and other economies in retailing would make possible substantial reductions in costs of distributing textile products, to the advantage of farm producers and consumers.

Importance of Reducing Charges

The relative importance, from the viewpoint of costs, of increasing efficiency and of reducing the margins for manufacturing and distributing textile products is indicated by recent data. A reduction of 10 percent, for example, in these combined margins in 1957 would have amounted to about 8.6 percent of the costs of the finished products to ultimate consumers, to about two-thirds of the gross returns to farmers for the cotton and wool used, and to about three times the total costs of marketing the raw fibers, including the ginning and baling of cotton but excluding the scouring of wool. A reduction of 10 percent in costs of manufacturing textiles, including the fabrication of apparel and household textiles, would have amounted to about 4.2 percent of the costs of the finished products to consumers, to about a third of the gross returns to farmers for the cotton and wool used, and substantially more than the total costs of marketing the raw fibers. A reduction of 10 percent in costs of retailing, during this period, would have amounted to more than total costs of marketing the raw fibers used and to more than a fourth of the gross returns to farmers for the cotton and wool used.

RECENT DEVELOPMENTS IN TRANSPORTATION

The Piggyback Operation 1/

Piggyback service is now being offered by 50 of our major railroads. This service consists of hauling highway trailer bodies, with or without wheels, atop railroad flatcars. A truck trailer is pulled by a tractor to a warehouse or factory, and loaded with merchandise. The loaded trailer is pulled to the railroad yard, backed onto a flatcar, and hauled by rail to its destination city; there a truck tractor pulls it to the door of its destination point, or perhaps to several locations within an area for multiple deliveries. There are five basic plans of TOFC (trailer on flatcar) operation. Some of these are adaptable to the transportation of agricultural commodities and, in recent years, are becoming a significant factor in the movement of fresh fruits and vegetables.

The five basic plans are:

Plan I -- The railroad carries trailers of common carrier truckers either at a flat charge per trailer or for a portion of the rate charged by the trucker. The trucking company performs the pickup and delivery services.

Plan II -- The railroad performs all of the services, including furnishing of trailer, loading and unloading, pickup and delivery. The railroad also solicits the business at truck competitive rates and bills the shipper.

Plan III - The railroad furnishes the flatcars and moves trailers on and off them. The shippers own the trailers and handle pickup and delivery of merchandise. Ramp-to-ramp rates are made for these shippers' trailers based on commodity and quantity moved, or at a flat per-trailer charge. Plan III charges usually approximate 50 cents a car-mile when two trailers are loaded on a flatcar.

Plan IV -- The railroad furnishes only power and rails for shippers who not only furnish both flatcar and trailers, but perform all loading, unloading, pickup and delivery services. A flat charge per car is made for cars carrying no more than two trailers. This charge varies depending on whether the trailers are loaded or empty. Plan IV charges usually approximate 40 to 42 cents a mile.

Plan V -- This plan consists of joint rail-truck rates. In effect, such rates extend the territory of each carrier into that served by the other, permitting each to handle shipments originating in or destined for the other's territory. Each may sell for the other.

1/ Prepared by William T. Marcoux and Celia Sperling, Transportation Economists, Transportation and Facilities Research Division, Agricultural Marketing Service.

Plan II is the most widely used of the five basic plans. Some railroads offer more than one plan. Of the 50 railroads offering piggyback service, the following tabulation shows the number offering each type of plan:

	<u>Number of railroads</u>		<u>Number of railroads</u>
Plan I	18	Plan IV	12
Plan II	41	Plan V	3
Plan III	20		

These basic plans have a host of variations. Under Plan II, for example, there are special rates which require the railroad to load, and the consignee to unload. Other rates restrict the terminal area; still others apply only when the shipper picks up the empty trailer at the ramp and delivers the loaded trailer at the same location. In many cases, allowances are made for use of shippers' trailers.

Plans III and IV provide for all-commodity rates, though there is usually a limitation on the number of commodities that may be loaded under these plans. An all-commodity rate or mixed carload rate is a charge for the movement of a variety of goods in a single carload shipment. Up to July 30, 1959, Plan IV had been used principally by freight forwarders since most other shippers do not have a two-way loaded movement.

One of the advantages of the TOFC system lies in the reduction in freight-handling costs. For example, according to ICC estimates it costs \$8.00 to load and unload a trailer onto and off a flatcar or, assuming a 10-ton trailer, 80 cents per ton. The handling costs per ton of such a load carried at less-than-carload rates would be \$3.90 per ton to load the boxcar from the trailer and another \$3.90 per ton to unload onto another trailer for delivery -- a total of \$7.80. The saving on handling charges would thus be \$7.00 a ton. A substantial net saving would remain even after allowing for trailer rental while the load is in transit (about 50 cents a ton per day). It is claimed that this saving plus the low basic rail cost and the reduction in pilferage and handling damage justify the TOFC operation.

Some of the advantages claimed for truckers using the TOFC service come from the elimination of part of the fuel cost, drivers' wages, ton-mile highway taxes, and the avoidance of State highway restrictions on the size and weight of trailers.

The rails have been experiencing a substantial increase in carloads by piggyback since its inception. All plans combined have provided the rails in the first 8 months of this year (1959) with 262,534 carloads of traffic compared with 99,206 carloads for the corresponding period in 1955. The average weekly carloading for the first 8 months of 1959 was 7,721 carloads compared to 2,947 in 1955.

Piggyback service is now being offered for the transportation of agricultural commodities. The Missouri-Pacific Railroad offers piggyback service for movements of fresh fruits and vegetables originating in the Rio Grande Valley of Texas and destined for the St. Louis market area. The total number of piggyback carloads of fresh fruits and vegetables hauled by the Missouri-Pacific out of the Rio Grande Valley during the 1958-59 season (Sept.-June) was 1,141 carloads compared with 778 carloads hauled during the 1957-58 season. Although the piggyback operation has not been used to any great extent for transportation of agricultural commodities, it is anticipated that this service will be offered more and more for the movement of farm products.

The Federal Highway Program 2/

The Federal Highway Act of 1956 authorized the construction of 40,000 miles of interstate and defense highways over a period of 13 years. It also increased the funds provided for construction of Federal Aid primary, secondary, and urban roads. The Interstate Highway System was to be financed by a 90 percent contribution from the Federal Government matched by 10 percent from the States. As of July 1, 1959, 4,050 miles of road had been completed and over 5,000 additional miles were under construction.

The producers and haulers of farm products will benefit materially from this new interstate system of roads. Better roads and shorter routes will tend to reduce truck operating costs and reduce the transit time from farm to market. The latter, in turn, will tend to reduce the effects of unstable market conditions and to minimize the deterioration in quality of perishable agricultural products. These benefits are important to the agricultural community because more and more farm products travel by truck from farm to market. The records of major wholesale markets throughout the country indicate that about 57 percent of all fresh fruits and vegetables arrive by motor transport. A survey of stockyards shows that about 85 percent of all livestock arrives by truck. In addition, virtually all poultry and eggs move to market over the highways. Improved highways will facilitate the marketing of these, as well as other agricultural commodities.

Several modifications have been made in the program as conceived in 1956. An amendment to the original act added 1,000 miles to the 40,000 initially provided. A total of 1,452 miles were "saved" by more direct routing than was anticipated. These "saved miles" are being reallocated to the States. It was also decided to incorporate over 5,000 miles of already existing toll and free roads into the Interstate Highway System.

These modifications of the program, added to increased costs of labor and materials, have boosted its cost from the originally estimated \$25 billion to \$39 billion. The Federal contribution to the program is administered through a Highway Trust Fund supported by various automotive excise taxes paid by highway users. The tax program was planned to be in force until July 1, 1972, a 16-year period.

2/ Prepared by William T. Marcoux and Celia Sperling, Transportation Economists, Transportation and Facilities Research Division, Agricultural Marketing Service.

An early surplus of revenues over expenditures resulted in a buildup of the Trust Fund. The peak was reached in May 1958. Since then with the construction program moving into high gear, expenditures have exceeded revenues.

The Federal-Aid Highway Act of 1958 placed additional strain on the Trust Fund. It provided that, in addition to the regular appropriations for highway construction in fiscal years 1960 - 1962, a further appropriation of \$800 million be made for the Interstate Highway System and \$400 million for primary and secondary road construction. The \$400 million was described as an "anti-recession" measure and was required to be placed under contract before December 1, 1958. Without some means of increasing revenues, these provisions would have caused a deficit in the Trust Fund of some \$1 billion by the end of 1961 and \$2 billion by the end of 1962.

In order to avoid a serious lag in the highway program due to lack of funds, the President signed into law on September 21, 1959, the Federal-Aid Highway Act of 1959. The new law provides supplementary financing for the Highway Trust Fund for the period from October 1, 1959, to July 1, 1964, estimated to yield an additional \$3,472 million.

A portion of the funds will come from a temporary 1-cent per gallon increase in the Federal tax on gasoline, diesel fuel and special motor fuels. This increase (from 3 to 4 cents per gallon) will be effective for 21 months, from October 1, 1959, until July 1, 1961. The Treasury Department has estimated that the yield to the Highway Trust Fund over this period will be \$985 million.

Part of the excise tax on automobiles, parts, and accessories will also go into the Highway Trust Fund. Beginning July 1, 1961, until July 1, 1964, the law allocates to the fund half of the 10 percent Federal excise tax on automobiles and 5 of the 8 percent tax on automotive parts and accessories. This earmarking is estimated to produce \$2,487 million. The bill also reduces from \$2.5 billion to \$2 billion the Interstate System authorization for fiscal 1961. The \$2.2 billion authorized by the 1956 Act for fiscal 1962 remains the same.

St. Lawrence Seaway Traffic Developments 3/

Exports of United States grain from ports on the Great Lakes from May through September 1959 reached 101.5 million bushels, about seven times the 15.5 million bushels exported a year earlier. Exports of grain from all United States ports increased about 28 percent. About 86.7 million bushels moved through the St. Lawrence Seaway and 14.8 million bushels moved to Canadian ports not on the Seaway. Of the grain moving on the Seaway,

^{3/} Prepared by Robert C. Haldeman, Transportation Economist, Transportation and Facilities Research Division, AMS.

66.8 million bushels moved in ocean-going vessels directly overseas and 19.4 million bushels was shipped to Montreal and other Canadian ports farther down the St. Lawrence River. ^{4/} About 76 percent of the United States grain shipments on the Seaway originated at Duluth-Superior, 16 percent at Chicago, and 8 percent at Toledo. Direct overseas shipments of grain from Duluth-Superior in the first 9 months of 1959 totaled 55.3 million bushels, up from 6.4 million bushels for the entire year of 1958. ^{5/}

Direct overseas shipments via the Seaway have largely supplanted the former lake-rail-ocean movement via Buffalo and Atlantic Coast ports. For May through September export movements of grain through North Atlantic ports totaled 30 percent less this year than last. Shipments via Gulf Coast ports have increased 28 percent and Pacific Coast shipments have decreased 29 percent. Grain exports, May through September, through all United States ports increased from 330.4 million bushels in 1958 to 421.0 million in 1959. The 86 million bushel increase via the Great Lakes has more than offset the decrease of 20 million bushels through North Atlantic ports.

Trucked grain receipts at Great Lakes ports have increased significantly this year. For the period January through August, 1959, 42.8 million bushels moved to Chicago, Duluth-Superior, and Toledo. For the full calendar year 1958, truck receipts totaled 41.5 million bushels. The 1957 total was 26.3 million bushels.

To meet the competition of truck shipments to ports on the Great Lakes, eastern railroads have reduced rates on grain shipped from Illinois, Indiana, Ohio, and Michigan to North Atlantic ports for export. The railroads reduced these rates by as much as 20 percent, effective June 18, 1959, and provided for routing via Buffalo and other markets. Buffalo rail receipts have increased substantially since these reductions. To meet rate reductions on eastern lines, which also reduced through charges from origins west of the Mississippi River, and to meet truck and barge competition, western lines terminating at ports on the Great Lakes and North-South railroads with Gulf Coast outlets, also have proposed substantial reductions. To counter growing direct overseas shipments from Great Lakes ports, railroads operating out of Buffalo reduced rates on grain for export effective September 30. The rail rate reductions were made applicable from selected origins to selected destinations; they are expected to reduce substantially the overall transportation charges for grain. Possible reductions in domestic grain rates are being studied by the railroads, but these probably will not become effective until next year.

^{4/} Data furnished by Market News Branch, AMS.

^{5/} Compiled from reports of Duluth Port Authority, Chicago Board of Trade, and Toledo Board of Trade.

Present charges for exporting wheat in ocean-going vessels direct from Duluth-Superior to Rotterdam total about 25.0 cents per bushel. From the Minneapolis market, which serves the same producing area, the charge, using barge transportation to the Gulf and ocean vessel beyond, totals 31.5 cents -- a differential favoring the Seaway by about 6.5 cents per bushel. Using lake vessel to Buffalo, rail to North Atlantic ports, and ocean vessel beyond, the present charge is about 37.0 cents a bushel, 12.0 cents higher than the direct overseas charge from Duluth.

Processed agricultural products have been exported via the St. Lawrence Seaway. Some of these are flour, powdered milk, lard, tallow, canned meat, feeds, seed, corn meal, hides, cheese, honey, edible beans, frozen meat, and poultry. Imported agricultural products have included olives, grass seed, green coffee, cheese, breads, canned meats, and hides. Products used on our farms also have been imported. Among these are baler twine, wire, chemicals and machinery, as well as numerous household items. The size of the hinterland directly affected by the Seaway is indicated by export movements via the Seaway of flour and grains from Kansas and North Dakota, wheat from Colorado and Montana, synthetic rubber from the Ohio River valley, frozen meat from Omaha and Kansas City, automobiles from Kenosha and Detroit -- to name a few.

The Seaway navigation project cost about \$470 million of which \$329 million was allocated to Canada and \$141 million to the United States. Toll charges for use of the Seaway are divided between the two countries in direct proportion to the allocated investment. For the Seaway, Lake Ontario to Montreal, pre-Seaway estimates of 1959 traffic were 25 million short tons with toll revenue of \$13.1 million. Operation and maintenance expenses were estimated at \$3.2 million and accrued interest to be paid currently at \$9.9 million. No payments on principal and deferred interest are scheduled until after a 5-year traffic development period has elapsed.

Neither the St. Lawrence Seaway Authority of Canada nor the Saint Lawrence Seaway Development Corporation of the United States has provided official data on toll revenues, and probably this information will not be made public for some time. Traffic statistics are issued monthly. Upbound and downbound traffic through September of this year totaled 14.2 million short tons, or about 57 percent of the 25 million tons anticipated. However, this volume was about 67 percent greater than shipments during the same 1958 period through the shallow channels of the pre-Seaway St. Lawrence. By the end of September slightly less than two-thirds of the usual 230-240 day navigation season had elapsed. These statistics indicate traffic probably will not reach the anticipated volume, and revenue may fall short of covering all expenses this year. Information is not available as to the 1959 anticipated Seaway volume of specific commodities but total U. S. grain movement this year may well reach or exceed 120 million bushels.

New and expanded facilities to handle Seaway traffic at Great Lakes ports have been provided. These include elevators for grain storage and general cargo docks and warehouses for truck, rail, and barge traffic interchange. A new 11.5 million bushel storage facility is nearing completion at Baie Comeau, Quebec, 300 miles below Quebec City, on the lower St Lawrence River, where navigation is possible all year. Another large grain company has a land option in this area and is considering construction of a similar facility. These will provide storage for both Canadian and United States grain and provide tonnage for export during the winter months. During the winter of 1958, ocean-going vessels served Quebec City. This was accomplished through the use of heavy ice breakers. Triweekly service has been announced for this winter. Movement of grain during open navigation on the Seaway for storage on the lower St. Lawrence and export during the winter months will permit increased traffic and is equivalent to a longer navigation season.

Most harbors on the Great Lakes have minimum channel depths of less than the 27-foot Seaway. Connecting channel depths between Lakes Superior, Huron, and Erie, now at 25 feet, will be deepened to 27 feet by 1962. The Corps of Engineers, U. S. Army, has recommended that Congress appropriate money for deepening several harbors on the Great Lakes and is studying the physical and economic advisability of deepening others. The capacity of the Welland Canal, circumventing Niagara Falls, will be increased 25 percent for the 1960 navigation season. This is being done by providing additional tie-up walls at certain locations; these reduce the time required for a ship to move into a lock. Efforts are being made to reduce lockage time further by improving facilities for filling and emptying locks.

As lockage time is reduced, channels and harbors are deepened, and handling facilities are improved, ocean-going vessels will find the Seaway route increasingly attractive. Larger ships will be loaded heavier and time at sea and in port will be reduced. Costs will come down and grain and other traffic through the St. Lawrence Seaway should increase.

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(The material in this publication is summarized in "The Midwest Sweet Corn Industry," by Richard A. Andrews, Minn. Agr. Expt. Sta. Bul. 450, June 1959.)
2. "Comparative Costs of Alternative Methods for Performing Certain Handling Operations in Florida Citrus Packinghouses," by George L. Capel, Fla. Agr. Expt. Sta. Bul. 609, June 1959. (AMS cooperating.)
3. "Consumer Preference for a 6-to-1 Apple Juice Concentrate," by J. Scott Hunter, U.S. Dept. Agr., Mktg. Res. Rpt. 343, July 1959.
4. "Differentials in Workers' Earnings in Selected Segments of Food Marketing," by Imogene Bright, U.S. Dept. Agr., Agr. Mktg. Serv. Pub. 333, Sept. 1959.
5. "Cutting Costs of Handling Produce -- at Retail," by Wholesaling and Retailing Section, Marketing Research Division, Agricultural Marketing Service, U.S. Dept. Agr., Agr. Mktg. Serv. Pub. 314, June 1959.
6. "Economies of Scale in Chicken Processing," by George B. Rogers and Edwin T. Bardwell, U.S. Dept. Agr., Agr. Mktg. Serv. Pub. 331, Aug. 1959. (N. H. and Mass. Agr. Expt. Stas and AMS cooperating.)
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9. "Employee Food Services in Manufacturing Plants," by Esther S. Hochstim, U.S. Dept. Agr., Mktg. Res. Rpt. 325, June 1959.
10. "Evaluating Soybeans by Dielectric Analysis and Other Methods," by Harland N. Doughty, U.S. Dept. Agr., Mktg. Res. Rpt. 367, Oct. 1959.
11. "Factors Influencing Competition Among Flour Mills in the Pacific Slope States," by V. John Brensike, U.S. Dept. Agr., Mktg. Res. Rpt. 362, Aug. 1959.
12. "Flaxseed Storage at Country Elevators in Minnesota, North Dakota, and South Dakota," by William M. Manion and Harland N. Doughty, U.S. Dept. Agr., Mktg. Res. Rpt. 350, July 1959.
13. "Fresh Produce Prepackaging Practices in the United States," by Thomas B. Smith and Juan Jose Valldejuli, U.S. Dept. Agr., Mktg. Res. Rpt. 341, July 1959.
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15. "Labor Efficiency in Formula Feed Production," by Carl J. Vosloh, Jr., U.S. Dept. Agr., Agr. Mktg. Serv. Pub. 310, June 1959. (Preliminary report.)

16. "Meat Distribution in the Los Angeles Area," by Raymond A. Dietrich and Willard F. Williams, U.S. Dept. Agr., Mktg. Res. Rpt. 347, July 1959.
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19. "Patterns of Rice Distribution in the United States and Territories," by Harry O. Doty, Jr., U.S. Dept. Agr., Agr. Mktg. Serv. Pub. 306, May 1959.
20. "Policies and Practices of Some Leading Institutional Wholesale Grocers," by Patrick J. Cassidy and Paul Wischkaemper, U.S. Dept. Agr., Mktg. Res. Rpt. 335, June 1959.
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23. "The Changing Role of the Fruit Auctions," by Alden C. Manchester, U.S. Dept. Agr., Mktg. Res. Rpt. 331, June 1959.
24. "The Inedible Tallow and Grease Industry: Changes in Markets, Practices, and Costs," by Virginia Farnworth, U.S. Dept. Agr., Mktg. Res. Rpt. 342, July 1959.
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28. "Volume-Weight Relationships of Farmers Stock Peanuts Stored in Bulk," by Magnus B. Johnson, U.S. Dept. Agr., Agr. Mktg. Serv. Pub. 303, May 1959.
29. "Wool Warehouses and Their Operation in the Eleven Western States," by A. D. Jones, Jr., N. Mex. Agr. Expt. Sta. Bul. 440, June 1959. (Agr. Expt. Stas. of the Western States and USDA cooperating.)

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:	Publications issued by State Agricultural Experiment	:
:	Stations may be obtained from the issuing Station.	:
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Table 9.- Farm food products: Retail cost, farm value of equivalent quantities sold by producers, byproduct allowance, farm-retail spread, and farmer's share of retail cost, July-September 1959 ^{1/}

Product ^{2/}	Farm equivalent	Retail unit	Retail cost	Gross farm value	Byproduct allowance	Net farm value	Farm-retail spread	Farmer's share
			Dollars	Dollars	Dollars	Dollars	Dollars	Percent
Market basket ^{3/}			1,044.92	---	---	395.08	649.84	38
Meat products			280.50	---	---	144.36	136.14	51
Dairy products			194.93	---	---	86.67	108.26	44
Poultry and eggs		Average quantities purchased per urban wage-earner and clerical-worker family in 1952	86.30	---	---	50.14	36.16	58
Bakery and cereal products	Farm produce equivalent to products bought by urban families		161.30	---	---	27.57	133.73	17
All ingredients			---	23.83	2.78	21.05	---	13
Grain			---	---	---	---	---	---
All fruits and vegetables			235.65	---	---	68.74	166.91	29
Fresh fruits and vegetables ..			137.25	---	---	46.00	91.25	34
Fresh vegetables			67.78	---	---	21.70	46.08	32
Processed fruits and vegetables			98.40	---	---	22.75	75.65	23
Fats and oils			42.65	---	---	10.35	32.30	24
Miscellaneous products			43.58	---	---	7.24	36.34	17
			Cents	Cents	Cents	Cents	Cents	Percent
Beef (Choice grade)	2.16 lb. Choice grade cattle	Pound	82.5	56.0	5.5	50.5	32.0	61
Lamb (Choice grade)	2.33 lb. lamb	Pound	73.5	45.0	5.9	39.1	34.4	53
Pork (retail cuts)	2.13 lb. hogs	Pound	57.2	30.5	3.7	26.8	30.4	47
Butter	Cream and whole milk	Pound	74.4	---	---	52.2	22.2	70
Cheese, American process	Milk for American cheese	Pound	58.3	---	---	27.8	30.5	48
Ice cream	Cream and milk	Pint	29.7	---	---	4/5.6	24.1	19
Milk, evaporated	Milk for evaporating	14-1/2 ounce can	15.2	---	---	6.1	9.1	40
Milk, fluid	Wholesale fluid milk	Quart	24.7	---	---	10.6	14.1	43
Chickens, frying, ready-to-cook	1.37 lb. broilers	Pound	41.6	---	---	21.7	19.9	52
Eggs	1.03 doz.	Dozen	51.6	---	---	32.2	19.4	62
Bread, white								
All ingredients	Wheat and other ingredients	Pound	19.7	---	---	2.8	16.9	14
Wheat .....	.894 lb. wheat	Pound	19.7	2.6	.3	2.3	17.4	12
Crackers, soda	1.40 lb. wheat	Pound	29.1	4.0	.4	3.6	25.5	12
Corn flakes	1.57 lb. white corn	12 ounces	25.6	3.1	.7	2.4	23.2	9
Corn meal	1.34 lb. white corn	Pound	13.0	2.7	.3	2.4	10.6	18
Flour, white	7.0 lb. wheat	5 pounds	54.1	20.1	2.3	17.8	36.3	33
Rolls oats	2.31 lb. oats	18 ounces	20.4	4.4	.7	3.7	16.7	18
Apples	1.08 lb. apples	Pound	15.9	---	---	4.1	11.8	26
Grapefruit	1.04 grapefruit	Each	16.1	---	---	3.4	12.7	21
Lemons	1.04 lb. lemons	Pound	18.0	---	---	5.2	12.8	29
Oranges	1.04 doz. oranges	Dozen	69.9	---	---	21.9	48.0	31
Beans, green	1.09 lb. snap beans	Pound	19.9	---	---	8.7	11.2	44
Cabbage	1.10 lb. cabbage	Pound	8.4	---	---	2.9	5.5	35
Carrots	1.06 lb. carrots	Pound	14.6	---	---	4.0	10.6	27
Celery	1.11 lb. celery	Pound	14.1	---	---	4.2	9.9	30
Lettuce	1.41 lb. lettuce	Head	18.4	---	---	6.6	11.8	36
Onions	1.06 lb. onions	Pound	9.6	---	---	2.6	7.0	27
Potatoes	10.42 lb. potatoes	10 pounds	70.9	---	---	21.3	49.6	30
Sweetpotatoes	1.12 lb. sweetpotatoes	Pound	14.9	---	---	4.4	10.5	30
Tomatoes	1.18 lb. tomatoes	Pound	22.7	---	---	7.7	15.0	34
Orange juice, canned	5.83 lb. Fla. oranges for canning	46 ounce can	51.9	---	---	20.2	31.7	39
Peaches, canned	1.89 lb. Calif. cling	No. 2-1/2 can	35.8	---	---	5.8	30.0	16
Beans with pork, canned .....	.35 lb. Mich. dry beans	16 ounce can	15.0	---	---	2.1	12.9	14
Corn, canned	2.49 lb. sweet corn	No. 303 can	19.6	---	---	2.3	17.3	12
Peas, canned .....	.69 lb. peas for canning	No. 303 can	20.4	---	---	3.0	17.4	15
Tomatoes, canned	1.84 lb. tomatoes for processing	No. 303 can	15.4	---	---	2.3	13.1	15
Orange juice concentrate, frozen	3.05 lb. Fla. oranges for frozen concentrated juice	6 ounce can	26.2	---	---	11.9	14.3	45
Strawberries, frozen .....	.51 lb. strawberries for processing	10 ounces	26.2	---	---	6.8	19.4	26
Beans, green, frozen .....	.71 lb. beans for processing	9 ounces	22.7	---	---	4.3	18.4	19
Peas, frozen .....	.70 lb. peas for freezing	10 ounces	19.9	---	---	3.1	16.8	16
Dried beans (navy)	1.00 lb. Mich. dry beans	Pound	17.3	---	---	5.9	11.4	34
Dried prunes .....	.97 lb. dried prunes	Pound	40.2	---	---	17.9	22.3	45
Margarine, colored	Soybeans, cottonseed, and milk	Pound	27.7	---	---	6.5	21.2	23
Peanut butter	1.77 lb. peanuts	Pound	55.6	---	---	17.4	38.2	31
Salad dressing	Cottonseed, soybeans, sugar, and eggs	Pint	37.7	---	---	6.1	31.6	16
Vegetable shortening	Soybeans and cottonseed	3 pounds	88.9	---	---	23.7	65.2	27
Corn sirup	1.90 lb. corn	24 ounces	26.5	3.8	.6	3.2	23.3	12
Sugar	36.79 lb. sugar beets	5 pounds	57.2	21.2	1.1	5/20.1	5/37.1	5/35

^{1/} The methods of calculation and the sources of price data are given in Part II of "Farm-Retail Spreads for Food Products," U. S. Dept. Agr. Misc. Pub. 741, 1957.

^{2/} Product groups include more items than those listed in this table. For example, the meat products group includes veal and lower grades of beef in addition to carcass beef of Choice grade, lamb, and pork.

^{3/} Market basket total may differ from sum of product group totals because of rounding of averages.

^{4/} Includes farm value of cream and milk only.

^{5/} Net farm value adjusted for Government payments to producer was 24.4 cents, farm-retail spread adjusted for Government processor tax was 34.4 cents, farmer's share of retail cost based on adjusted farm value was 43 percent.

Preliminary estimates.

Table 10.- Farm food products: Retail cost and farm value, July-September 1959, April-June 1959, July-September 1958 and 1947-49 average ^{1/}

Product ^{2/}	Retail unit	Retail cost						Net farm value ^{3/}					
		July-Sept. 1959		Apr.-June 1959		July-Sept. 1958		July-Sept. 1959		Apr.-June 1959		July-Sept. 1958	
		1959		1959		1958		1959		1959		1958	
		4/	5/	4/	5/	4/	5/	4/	5/	4/	5/	4/	5/
		Dollars	Dollars	Dollars	Dollars	Percent	Percent	Dollars	Dollars	Dollars	Dollars	Percent	Percent
Market basket ^{6/}		1,044.92	1,040.39	5/1,068.40	940.09	7/	-2	395.08	5/402.10	5/422.95	466.02	-2	-7
Meat products		280.50	284.04	5/298.85	256.08	-1	-6	144.36	5/155.40	5/166.04	170.90	-7	-13
Dairy products		194.93	192.46	193.00	169.28	1	1	86.67	84.11	5/86.33	91.66	3	7/
Poultry and eggs	Average quantities purchased	86.30	79.61	5/97.56	117.01	8	-12	50.14	45.11	5/59.81	80.69	11	-16
Bakery and cereal products	per urban wage-earner and clerical-worker family in 1952	161.30	161.18	159.91	121.96	7/	1	27.57	28.03	28.69	34.97	-2	-4
All ingredients		---	---	---	---	---	---	21.05	5/20.98	5/20.78	24.96	7/	1
Grain		---	---	---	---	---	---	---	---	---	---	---	---
All fruits and vegetables		235.65	236.69	230.46	184.68	7/	2	68.74	5/70.55	5/63.06	60.93	-3	9
Fresh fruits and vegetables		137.25	139.24	134.90	103.91	-1	2	46.00	5/47.48	5/45.78	42.91	-3	7/
Fresh vegetables		67.78	72.27	61.97	53.17	-6	9	21.70	24.20	5/17.07	22.97	-10	27
Processed fruits and vegetables		98.40	97.45	95.56	---	1	3	22.75	23.07	5/17.28	---	-1	32
Fats and oils		42.65	42.82	44.83	52.21	7/	-5	10.35	5/11.60	5/11.71	19.84	-11	-12
Miscellaneous products		43.58	43.58	43.78	38.87	0	7/	7.24	7.30	5/7.31	7.03	-1	-1
		Cents	Cents	Cents	Cents	Percent	Percent	Cents	Cents	Cents	Cents	Percent	Percent
Beef (Choice grade)	Pound	82.5	83.4	81.3	68.5	-1	1	50.5	53.0	5/49.0	48.5	-5	3
Lamb (Choice grade)	Pound	73.5	73.1	75.7	63.9	1	-3	39.1	40.6	43.7	44.2	-4	-11
Pork (retail cuts)	Pound	57.2	58.2	67.5	59.4	-2	-15	26.8	29.7	5/38.9	39.7	-10	-31
Butter	Pound	74.4	74.2	73.9	79.4	7/	1	52.2	51.4	5/50.9	59.3	2	3
Cheese, American process	Pound	58.3	58.1	57.8	52.6	7/	1	27.8	27.4	27.7	32.0	1	7/
Ice cream	Pint	29.7	29.7	29.7	---	0	0	8/5.6	8/5.5	8/5.4	---	2	4
Milk, evaporated	14 1/2 ounce can	15.2	15.2	15.1	13.7	0	1	6.1	6.1	6.1	7.1	0	0
Milk, fluid	Quart	24.7	24.2	24.4	20.1	2	1	10.6	10.2	10.7	10.6	4	-1
Chickens, frying, ready-to-cook	Pound	41.6	42.1	5/46.3	---	-1	-10	21.7	21.9	5/24.3	---	-1	-11
Eggs	Dozen	51.6	44.2	59.0	66.7	17	-13	32.2	26.8	5/39.9	48.0	20	-19
Bread, white													
All ingredients	Pound	19.7	19.7	19.3	13.5	0	2	2.8	2.8	2.8	3.3	0	0
Wheat	Pound	---	---	---	---	---	---	2.3	2.3	2.2	2.7	0	5
Crackers, soda	Pound	29.1	29.2	29.2	---	7/	7/	3.6	3.5	3.4	---	3	6
Corn flakes	12 ounces	25.6	25.6	25.5	17.1	0	7/	2.4	2.5	3.5	3.2	-4	-31
Corn meal	Pound	13.0	13.0	12.9	11.8	0	1	2.4	2.5	3.6	3.6	-4	-33
Flour, white	5 pounds	54.1	54.7	55.0	48.4	-1	-2	17.8	17.8	17.2	21.0	0	3
Rolled oats	18 ounces	20.4	20.4	20.3	14.5	0	7/	3.7	3.6	3.4	4.9	3	9
Apples	Pound	15.9	15.6	9/	11.9	2	9/	4.1	3.3	9/	4.3	24	9/
Grapefruit	Each	16.1	12.6	---	8.5	28	---	3.4	5/2.3	---	1.4	48	---
Lemons	Pound	18.0	18.4	17.9	17.7	-2	1	5.2	4.9	4.5	5.7	6	16
Oranges	Dozen	69.9	65.6	82.5	46.6	7	-15	21.9	23.2	36.5	12.6	-6	-40
Beans, green	Pound	19.9	25.7	18.8	21.1	-23	6	8.7	10.0	8.1	9.3	-13	7
Cabbage	Pound	8.4	8.8	7.2	6.9	-5	17	2.9	1.8	1.8	1.9	61	61
Carrots	Pound	14.6	14.2	14.9	11.1	3	-2	4.0	3.3	4.5	4.0	21	-11
Celery	Pound	14.1	13.3	15.2	---	6	-7	4.2	3.5	3.9	---	20	8
Lettuce	Head	18.4	15.3	15.6	14.5	20	18	6.6	4.3	4.0	6.3	53	65
Onions	Pound	9.6	14.0	9.5	8.4	-31	1	2.6	5.6	2.5	3.7	-54	4
Potatoes	10 pounds	70.9	69.5	59.6	51.9	2	19	21.3	26.2	5/14.3	25.6	-19	49
Sweetpotatoes	Pound	14.9	14.4	17.1	11.6	3	-13	4.4	4.9	4.6	4.8	-10	-4
Tomatoes	Pound	22.7	32.3	21.4	---	-30	6	7.7	10.0	6.7	---	-23	15
Orange juice, canned	46 ounce can	51.9	49.1	41.6	---	6	25	20.2	19.9	7.3	---	2	177
Peaches, canned	No. 2-1/2 can	35.8	36.4	34.0	31.5	-2	5	5.8	6.1	6.1	5.3	-5	-5
Beans with pork, canned	16 ounce can	15.0	15.1	15.1	---	-1	-1	2.1	2.5	2.8	---	-16	-25
Corn, canned	No. 303 can	19.6	19.5	17.7	16.7	1	11	2.3	2.3	2.3	2.7	0	0
Peas, canned	No. 303 can	20.4	20.7	21.1	21.4	-1	-3	3.0	3.0	3.1	3.0	0	-3
Tomatoes, canned	No. 303 can	15.4	15.6	17.5	14.2	-1	-12	2.3	2.4	2.3	2.6	-4	0
Orange juice concentrate, frozen	6 ounce can	26.2	24.9	28.7	---	5	-9	11.9	11.4	8.7	---	4	37
Strawberries, frozen	10 ounces	26.2	25.9	26.4	---	1	-1	6.8	6.2	5.7	---	10	19
Beans, green, frozen	9 ounces	22.7	22.7	23.2	---	0	-2	4.3	4.3	4.4	---	0	-2
Peas, frozen	10 ounces	19.9	19.9	19.6	---	0	2	3.1	3.1	3.1	---	0	0
Dried beans (navy)	Pound	17.3	17.3	19.0	19.9	0	-9	5.9	7.2	8.0	9.7	-18	-26
Dried prunes	Pound	40.2	40.0	33.5	23.1	1	20	17.9	17.9	5/9.8	8.8	0	83
Margarine, colored	Pound	27.7	27.8	29.1	39.7	7/	-5	6.5	7.1	6.6	12.2	-8	-2
Peanut butter	Pound	55.6	55.8	56.4	---	7/	-1	17.4	20.1	5/19.1	---	-13	-9
Salad dressing	Pint	37.7	37.8	37.8	37.8	7/	7/	6.1	6.5	6.5	10.0	-6	-6
Vegetable shortening	3 pounds	88.9	88.3	93.8	105.6	1	-5	23.7	5/25.9	5/24.1	46.2	-8	-2
Corn sirup	24 ounces	26.5	26.4	26.0	---	7/	2	3.2	3.1	3.2	---	3	0
Sugar	5 pounds	57.2	56.7	56.8	48.4	1	1	20.1	20.1	20.1	19.4	0	0

^{1/} The methods of calculation and the sources of price data are given in Part II of "Farm-Retail Spreads for Food Products," U. S. Dept. Agr. Misc. Pub. 741, 1957.

^{2/} Product groups include more items than those listed in this table. For example, the meat products group includes veal and lower grades of beef in addition to carcass beef of Choice grade, lamb, and pork.

^{3/} Gross farm value adjusted to exclude imputed values of byproducts obtained in processing.

^{4/} Preliminary estimates.

^{5/} Most retail cost figures for Apr.-June 1959 have been revised; figures in other columns revised as indicated.

^{6/} Sum of product groups may differ slightly from market basket total because of rounding of averages.

^{7/} Less than 0.5 percent.

^{8/} Farm values of cream and milk only.

^{9/} Insufficient data.

Table 11.- Farm food products: Farm-retail spread and farmer's share of the retail cost, July-September 1959, April-June 1959, July-September 1958, and 1947-49 average 1/

Product 2/	Retail unit	Farm-retail spread 3/				Farmer's share					
		July-Sept.	Apr.-June	July-Sept.	1947-49	Percentage change		July-Sept.	Apr.-June	July-Sept.	1947-49
		1959	1959	1958	average	July-Sept. 1959	from -	1959	1959	1958	average
		4/	5/			Apr.-June 1959	July-Sept. 1958	4/			
		Dollars	Dollars	Dollars	Dollars	Percent	Percent	Percent	Percent	Percent	Percent
Market basket 6/		649.84	638.29	5/645.45	474.07	2	1	38	39	5/40	50
Meat products		136.14	128.64	5/132.81	85.18	6	3	51	55	5/56	67
Dairy products		108.26	108.35	5/106.67	77.62	7/	1	44	44	45	54
Poultry and eggs	Average	36.16	34.50	5/37.75	36.32	5	-4	58	57	5/61	69
Bakery and cereal products	quantities purchased										
All ingredients	per urban wage-earner	133.73	133.15	131.22	86.99	7/	2	17	17	18	29
Grain	and	---	---	---	---	---	---	13	13	13	20
All fruits and vegetables	clerical-										
Fresh fruits and vegetables	worker	166.91	166.14	5/167.40	123.75	7/	7/	29	30	27	33
Fresh vegetables	family	91.25	91.76	5/89.12	61.00	-1	2	34	5/34	34	41
Processed fruits and vegetables	in 1952	46.03	48.07	5/44.90	30.20	-4	3	32	5/33	28	43
Fats and oils		75.65	74.38	5/78.28	---	2	-3	23	24	18	---
Miscellaneous products		32.30	31.22	5/33.12	32.37	3	-2	24	27	26	38
		36.34	36.28	5/36.47	31.84	7/	7/	17	17	17	18
		Cents	Cents	Cents	Cents	Percent	Percent	Percent	Percent	Percent	Percent
Beef (Choice grade)	Pound	32.0	30.4	5/32.3	20.0	5	-1	61	5/64	5/60	71
Lamb (Choice grade)	Pound	34.4	32.5	32.0	19.7	6	8	53	56	58	69
Pork (retail cuts)	Pound	30.4	28.5	5/28.6	19.7	7	6	47	51	58	67
Butter	Pound	22.2	22.8	5/23.0	20.1	-3	-3	70	69	69	75
Cheese, American process	Pound	30.5	30.7	30.1	20.6	-1	1	48	41	48	61
Ice cream	Pint	24.1	24.2	24.3	---	7/	-1	19	19	18	---
Milk, evaporated	14 1/2 ounce can	9.1	9.1	9.0	6.6	0	1	40	40	40	52
Milk, fluid	Quart	14.1	14.0	13.7	9.5	1	3	43	42	44	53
Chickens, frying, ready-to-cook	Pound	19.9	20.2	5/22.0	---	-1	-10	52	52	52	---
Eggs	Dozen	19.4	17.4	5/19.1	18.7	11	2	62	5/61	5/68	72
Bread, white											
All ingredients	Pound	16.9	16.9	16.5	10.2	0	2	14	14	15	24
Wheat	Pound	---	---	---	---	---	---	12	12	11	20
Crackers, soda	Pound	25.5	25.7	25.8	---	-1	-1	12	12	12	---
Corn flakes	12 ounces	23.2	23.1	22.0	13.9	7/	5	9	10	14	19
Corn meal	Pound	10.6	10.5	9.3	8.2	1	14	18	19	28	31
Flour, white	5 pounds	36.3	36.9	37.8	27.4	-2	-4	33	5/33	31	43
Rolls oats	18 ounces	16.7	16.8	16.9	9.6	-1	-1	18	18	17	34
Apples	Pound	11.8	12.3	8/	7.6	-4	8/	26	5/21	8/	36
Grapefruit	Each	12.7	10.3	---	7.1	23	---	21	18	---	16
Lemons	Pound	12.8	13.5	13.4	12.0	-5	-4	29	5/27	25	32
Oranges	Dozen	48.0	42.4	46.0	34.0	13	4	31	5/35	44	27
Beans, green	Pound	11.2	15.7	10.7	11.8	-29	5	44	5/39	43	44
Cabbage	Pound	5.5	7.0	5.4	5.0	-21	2	35	20	25	28
Carrots	Pound	10.6	10.9	10.4	7.1	-3	2	27	23	30	36
Celery	Pound	9.9	9.8	11.3	---	1	-12	30	5/26	26	---
Lettuce	Head	11.8	11.0	11.6	8.2	7	2	36	5/28	26	43
Onions	Pound	7.0	8.4	7.0	4.7	-17	0	27	5/40	26	44
Potatoes	10 pounds	49.6	43.3	5/45.3	26.3	15	9	30	38	5/24	49
Sweetpotatoes	Pound	10.5	9.5	12.5	6.8	11	-16	30	34	27	41
Tomatoes	Pound	15.0	22.3	14.7	---	-33	2	34	31	31	---
Orange juice, canned	46 ounce can	31.7	29.2	34.3	---	9	-8	39	41	18	---
Peaches, canned	No. 2-1/2 can	30.0	30.3	27.9	26.2	-1	8	16	17	18	17
Beans with pork, canned	16 ounce can	12.9	12.6	12.3	---	2	5	14	17	19	---
Corn, canned	No. 303 can	17.3	17.2	15.4	14.0	1	12	12	12	13	16
Peas, canned	No. 303 can	17.4	17.7	18.0	18.4	-2	-3	15	14	15	14
Tomatoes, canned	No. 303 can	13.1	13.2	5/15.5	11.6	-1	-14	15	15	13	18
Orange juice concentrate, frozen	6 ounce can	14.3	13.5	20.0	---	6	-28	45	46	30	---
Strawberries, frozen	10 ounces	19.4	19.7	20.7	---	-2	-6	26	24	22	---
Beans, green, frozen	9 ounces	18.4	18.4	18.8	---	0	-2	19	19	19	---
Peas, frozen	10 ounces	16.8	16.8	16.5	---	0	2	16	16	16	---
Dried beans (navy)	Pound	11.4	10.1	11.0	10.2	13	4	34	42	42	49
Dried prunes	Pound	22.3	22.1	5/23.7	14.3	1	-6	45	45	5/29	38
Margarine, colored	Pound	21.2	20.7	22.5	27.5	2	-6	23	26	23	31
Peanut butter	Pound	38.2	35.7	5/37.3	---	7	2	31	36	34	---
Salad dressing	Pint	31.6	31.3	31.3	27.8	1	1	16	17	17	26
Vegetable shortening	3 pounds	65.2	62.4	69.7	59.4	4	-6	27	29	26	44
Corn sirup	24 ounces	23.3	23.3	22.8	---	0	2	12	12	12	---
Sugar	5 pounds	37.1	36.6	36.7	29.0	1	1	35	5/35	35	40

1/ The methods of calculation and the sources of price data are given in Part II of "Farm-Retail Spreads for Food Products," U. S. Dept. Agr. Misc. Pub. 741, 1957.

2/ Product groups include more items than those listed in this table. For example, the meat products group includes veal and lower grades of beef in addition to carcass beef of Choice grade, lamb, and pork.

3/ The farm-retail spread is the difference between the retail cost and the net farm value, table on opposite page.

4/ Preliminary estimates.

5/ Most farm-retail spread figures for Apr.-June 1959 have been revised; figures in other columns revised as indicated.

6/ Sum of product groups may differ slightly from market basket total because of rounding of averages.

7/ Less than 0.5 percent.

8/ Insufficient data.

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write the new address on this sheet
and return the whole sheet to:

Administrative Services Division (ML)
Agricultural Marketing Service
U. S. Department of Agriculture
Washington 25, D. C.